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## Original Correspondence.

## MANUFACTURE OF STEEL.

SIR.—Your remarks on the subject of Mr. Bessemer's further inventions does not, as you imagine, prove particularly interesting to me, the sum and substance of the matter being this—that we are to use desulphurised fuel to melt the iron, and are also to whitewash the iron granules, to protect the metal from any deleterious gases, just as the Welshmen whitewash their walls and houses to keep the fairies at a respectful distance, sulphur and mosenmen having a sad antipathy to whitewash. As the Bessemer process was in itself a grand discovery, and successful as far as could be expected, I am sorry to see patent heaped upon patent, in a vain attempt to make the process answer, by adopting various means which are calculated to have an opposite effect. The Bessemer process was completed by my No. 4 patent, which wholly removed all difficulties in the way of manufacturing cast-steel on the large scale from our own British coke pig-iron; and it is only the dog-in-the-manger obstinacy of the Ebbw Vale Iron Company generally, and Mr. Thomas Brown especially, which prevents the adoption of the combined processes to their fullest extent. Thus, to wreak their vindictive stupidity on me, they are content to forego a return of 100,000l. per annum, which I was willing to realise for them before claiming any reward for myself.

Your correspondent, "R. C.," writing about the Uchatius steel, assumes that I have done as much, but no more, than Capt. Uchatius. He is mistaken. By my method the pots are no more injured than in melting ordinary cast-steel, and I can to a certainty produce a constant uniformity in the quality of the steel thus made. "R. C." is also in error as to the alleged gain in weight of metal by the atomic process, and a moment's reflection would show him that it is impossible. Suppose 100 lbs. of pig-iron mixed with 20 lbs. of ore, the iron will contain on an average 8 per cent. of carbon and earths; the spathose ore, about 40 per cent. of iron. Then, when these are melted together, we shall have—Steel from pig-iron, 92 lbs.; ditto from 20 lbs. of ore, 8 lbs.—100 lbs. These proportions may be varied, but I think it would be as difficult to show the 14 per cent. gain of weight in the product, as claimed by the Uchatius party, as to show that the process patented by Uchatius differs in any essential particulars from that invented by my late father, in 1799. As to my father never having produced marketable steel by this process, that is no argument, for neither Uchatius nor his agents have produced an ounce of marketable steel in this country, except what I made for Messrs. Lenz and Howard here to hawk about, in order to gain a reputation for Uchatius steel.

As an inventor, I, as a matter of course, have made up my mind that no invention of mine will ever benefit me, and I do not expect it; but really it is a pity that the nation at large should be denied an abundance of cast-steel of the highest excellence at 1d. per lb., and be forced to pay four times that price, simply because some capitalists do not know on which side their bread is buttered. If I had laid before the Emperor Napoleon one-half the improvements in steel which I have shown to Mr. Thomas Brown, France would have been the great centre of the steel manufacture, for the power to produce the best cast-steel at less than one-third its present cost would have been appreciated by the Emperor, because he could have understood its importance, though to Mr. Brown such powers of comprehension are denied.

Your correspondent, "R. C.," taxes me with a desire to claim every process. I am quite innocent of any such desire. All I claim is this—to be able to manufacture excellent cast-steel from pig-iron direct, by the atomic process, and without damaging the melting pots; to manufacture first-class cast-steel direct from the ore for 14d. per ton, and to manufacture the best cast-steel from any kinds of bar-iron, scrap-iron, &c., for the mere cost of smelting the materials, added to their prime cost. Nobody else can do this, and no one has patented any methods of doing it successfully, so I claim nothing which any other person has claimed. But I invite any person interested to come and see it done, and to prove the steel afterwards in any manner he may think proper. The essential difference between my processes and those which have been launched in shoals upon the public is this:—There is no quackery about my processes, nothing taken for granted, no self-deception, and no dread of the fullest enquiry, or of the severest tests; on the contrary, I court the fullest investigation, and am ready to give the most convincing proofs.—*Coleford, April 19.* ROBERT MURPHY.

## THE SOUTH WALES INSTITUTE OF ENGINEERS.

SIR.—In your Journal of last Saturday you give an extract from the excellent inaugural address of the president to the members of the South Wales Institute of Engineers, which in the main is correct enough; but there is a point or two in the address on which I feel myself called upon to make a few observations, not by any means in disparagement either of the whole, or any of its paragraphs, but simply to explain what I consider an oversight in giving a description of the subject of "puddling," and the opinion that "science and practice have alike failed in materially improving the process."

With regard to the process of "puddling," the able and worthy president (Mr. William Menelaus, of Dowlais) truly observed had "remained, I may say, since its invention, almost without improvement, if I except that of our friend, Mr. S. B. Rogers." This is one point to which I would ask attention, because my improvement in the puddling process is not stated even in outline, and, therefore, persons unacquainted with it may feel at a loss as to its nature and effect. The "improvement" consisted in the substitution of iron bottoms to those furnaces instead of sand, by which means a puddling furnace can now turn out about 20 tons of iron per week, which previously only made 8 tons in the same period of time, and yet consuming the same quantity of coal in the week as at present. Now, this invention has been an exceedingly beneficial one for the ironmasters, and for the public generally; for it has economised materials, time, and labour to the amount of millions of money, and yet my only recompense has been ridicule, abuse, and neglect, never having received a single shilling on account of it, although it has been in successful and general action throughout the world for full 25 years!

With respect to the observation that "science and practice have alike failed in materially improving the process of puddling," I must beg, with all due deference to the authority referred to, to hold quite a different opinion; for when the late Mr. Richard Harford, of Ebbw Vale, told me in 1825 or 1826 he should adopt my "iron bottoms," I gave him in writing a process for puddling with them, by which the then Ebbw Vale Company were enabled to produce finished iron to the extent of thousands of tons, of a quality superior, and that realised a better price, than that of the iron of any other work in Monmouthshire or South Wales, with the exception of iron bars. The same process was also communicated, likewise in writing, to Mr. Crawshaw Bailey, of Nant-y-Glo, in 1825, who worked upon it for several years (12 to 15), until the rail-making trade sprang into existence, when the production of good puddled bars ceased to be a point of material importance to ironmasters, in consequence of the interior of rails being stuffed (principally for the sake of cheapness, and to gratify a false economy in railroad directors and engineers) with the most inferior sorts of iron that could be made. From this period of time (the advent of cheap rail-making) millions of tons of iron have flowed away from the notch of blast-furnaces as black and scouring cinder, inflicting upon ironmasters an incalculable money loss and disappointments, in a manner without end, to say nothing of the loss of ores, fuels, and fluxes in a national point of view, since such losses can never be replenished; and with this black cinder (some of which I have known to contain 28 per cent. of iron) white and sulphury pigs have been produced, which have originated extra losses in the mills and forges to the extent of 5 cwt. in the production of a ton of finished iron. Why should all these bad results continue to be turned out of hand in the works of Monmouthshire and South Wales, even to the present day? Fifty years have I devoted myself to improvements in iron metallurgy, regardless of cost, and have repeatedly endeavoured, both verbally and in writing, to rescue the science of it from the chaotic obscurity in which it has been buried, as it were, in a labyrinth of error, prejudice, folly, and unbelief. In the address of the talented president of the institution above referred to, it is very truly stated that "science and practice have alike failed (with the exception of the invention of iron bottoms) to materially improve the process of puddling;" but both the science and the practice of the thing has been in successful action for several years, as well at Ebbw Vale as at Nant-y-Glo, and may have been so at every iron-work in the United Kingdom, if ironmasters would have given the invention in question (my scientific and efficient method of producing good puddled bars) a fair and honest trial. The science and practice of my improved puddling process, as well as my efficient and economical mode of working and controlling the operations of blast-furnaces (by which many thousands of tons of iron may be saved from waste at several iron-works that may be named) are now, however, before the world, and alike open to improvements or refutation.

## THE COST-BOOK SYSTEM—LIMITED LIABILITY ACT.

SIR.—I observe that my letter has called forth another from your correspondent, Mr. Ennor. I cannot call it a reply, for it not only does not pretend to be one, but more than admits the correctness of my remarks; while I could hardly have believed that anyone could have written such preposterous nonsense, and exposed his entire ignorance of the subject on which he treats. The further he goes the more he condemns his own statements, and, in fact, expresses himself in such a manner that, if his view of the cost-book is correct, one ought to be very careful in connecting himself with such a "system." On the whole, your correspondent's observations and arguments are so palpably erroneous and absurd that I have hesitated as to whether I should condescend to notice them.

Mr. Ennor alludes to some proceedings within his own knowledge to which he objects, and, like most people who see they have the worst of a case, he endeavours to divert attention from the real facts and merits of the question. He does not attempt to show, in the very slightest degree, how these statements (assuming them to be true) affect, or are in any way connected with, the Limited Liability Act. Of the circumstances to which he refers I have no knowledge whatever, and I take up the question entirely on its merits. I can assure Mr. Ennor that I have never consulted him on this or any other subject, and he need not flatter himself that I am ever likely to do so.

Your correspondent is a great stickler for the Cost-book Principle, and would have it appear that he knows a great deal about it. I believe, from all I have heard, that companies have been formed under that system in at least quite as objectionable a manner as any under the Limited Liability Act, and I dare say Mr. Ennor can supply particulars of some of these without much difficulty. We know that under the cost-book it is only necessary to nearly fill up a share list with a few local merchants and "adventurers," and then get it completed with the names of two or three "good men," when the "pursers" can at once proceed to get any credit he pleases, and the "good men" soon find that they must "pay their calls punctually" to defray the "labour costs," and the merchant manages to supply "materials" to yield himself sufficient profit to meet his calls, until at last he gradually gets rid of his shares to "Jack Straws," and the "good men" are left to work away and pay the merchants' bills, and probably wind-up before long with a total loss to themselves, but with "shares and levels" made at considerable expense, "the great advantage of which will be evident" in the "reports" in the next attempt to carry out a similar process with the same concern.

Now, under the Limited Liability Act, a company gets credit like any private individual: its means and its respectability are alone regarded. The individual shareholders are liable only for their respective subscriptions to the common capital, to which alone creditors can look, thus rendering it necessary for their own protection to inform themselves as to the *bona fides* of the undertaking and of those connected with it. This also forms a check to companies entering into engagements which they cannot reasonably expect to fulfil, and prevents heavy liabilities being incurred by speculative promoters (on the credit of one or two shareholders), as was formerly often done, until at last the "bubble burst," and it was found that a few had to bear the whole burden. In fact, the strong tendency of the new Act is in time to prevent any but *bona fide* companies being attempted.

This is exemplified already in the comparatively few new companies formed under the Act which have been wound-up. The amount of liabilities in each case has been comparatively small, and is no instance of very large losses by the shareholders—like what we have been accustomed to see—nor of individuals being hunted up for more than their fair share, and what they had originally agreed to contribute. The schemes have been "nipped in the bud," and not allowed to go on until brought down by the weight of the debts, and involving the ruin of many persons. Mr. Ennor says that nearly three-quarters of the limited liability companies have been wound-up! On what data does he make this assertion? Are all his statements made so recklessly and as regardless of their correctness? I fear your correspondent is too apt to assert anything which occurs to him to suit his views. Since the passing of the new Joint Stock Act, 815 companies have been registered with limited liability, of which 633 are new companies, and 182 are old companies which have come under its provisions. Of the whole I believe not 7 per cent. have had to be wound-up; and of these a large proportion are old companies which were already insolvent, and have been brought under the act for the express purpose of being wound-up on account of the comparatively simple and economical mode in which this can be done; and I believe that among this class is more than half of the companies which have been wound-up. As to the new companies formed under the Act, I don't believe that 1-20th (instead of three-fourths, as Mr. Ennor says) have been wound-up. But, in those that have had to yield to that process the advantage of the Act is strikingly seen in the comparatively small amount of liabilities, and in the corresponding absence of individual hardships among shareholders.

Well might Mr. Ennor say that the Cost-book System is not perfect, for he goes on to give it the following wholesale condemnation, and unconsciously to admit the favourable contrast of the Limited Liability Act. He says— "This I know, that every shareholder in a cost-book company can, if he likes, attend the meetings, and, if he likes, see the accounts, and, if he likes, see the state of the company; he can also put such questions to the pursers or managers as are consistent to ascertain the true state of the mine and the accounts, or a committee can be formed, even from the minority, to investigate the accounts. He may likewise, for 6s., give public notice to merchants to return all outstanding accounts over two months, or they will not be paid; this enables a shareholder to judge pretty nearly as to the financial state of the mine. Then, I say, if men armed with this power neglect to use it they cannot blame the 'system,' but themselves. If adventurers allow pursers to return false accounts, so that the shareholders are misled, it is their own fault. When mining companies are started, trustworthy pursers should be selected, and have it set down in the rules that no money shall be allowed to remain in their hands, nor give them power to draw any from the banks without the cheques are signed by the manager and two of the committee. Pursers should also give a bond for—say, 500l., with one or two sureties if required, to be forfeited if any accounts are allowed to remain unpaid over two months without the sanction of the shareholders. If they only took a little trouble to have matters arranged like this at first, providing against the committee being material sellers, there would be no danger. Even if they had a Jack Straw man or two it would not be of much consequence; they need only let them get one call behind before taking proceedings against them, after giving fair notice, when, if they do not comply, forfeit their shares, and here would end the cost-book difficulty, even with Jack Straw men. If forfeited shares happen to throw a larger burden than the remaining shareholders can or wish to bear, they have only to pay up their calls, give notice and relinquish, when they know the end of it."

Here is a list of things which may or should be done (by the shareholders), but not one which is or must be done (by the officials), while the whole extract admits the most serious defects of the Cost-book System, and shows these in even stronger light than I am tempted to do. Mr. Ennor insists that the shareholders have the great privilege of attending the meetings if he likes. He is at liberty to travel every two or three months from Newcastle or John-o'-Groat's House, or anywhere else in the United Kingdom, to Cornwall or London, and have the satisfaction of spending his time and his dividends, or of increasing the burden of his "calls." In these pleasure trips, to examine the accounts of the pursers, and see if they are correct. But if he should find such a "system" scarcely compatible with his occupation, his comfort, or his pocket (as I should say a large majority do), he must be content to receive the periodical circulars, which show all the calls received, and all the debts discharged up to a stated date, with a balance for or against the company. As Lord Campbell is represented to have said a few days ago, one of the objects of the bill is to inform the public of the affairs of the company, and to enable them to judge whether it is prudent to buy shares, and, therefore, such a document cannot be too clear and distinct, as well as correct, to prevent any one being deceived. Now, to ascertain this in cost-book companies, what does Mr. Ennor recommend a shareholder to do?—1. To obtain an order to examine the accounts, if he should be "debarred from seeing them" (which is rather an ugly assumption of your correspondent's), and which I was not aware before that the officials of even a cost-book company ever dared to do. 2. To put questions to the pursers or managers, in order to "ascertain the true state of the mine and the accounts." 3. To form a committee to investigate the accounts. 4. To advertise to the merchants to return all outstanding accounts. A shareholder must, therefore, be well equipped in taking all these precautions, which Mr. N. Ennor thinks necessary for his protection, and to enable him to judge "pretty nearly" as to the financial state of the mine; and if he neglects to use them, Mr. Ennor says he has no one to blame but himself if he is deceived, and that he deserves to suffer from such notions; while the pursers who prepared and presented the erroneous accounts is not the one to be blamed or punished. These, be it observed, are Mr. Ennor's views of the Cost-book System, and its "principles." I can only say that such is not the case under the Limited Liability Act, but that directors and managers are liable to be punished for knowingly publishing false accounts, from which they are not freed by the absence of shareholders from the meetings, or by any other cause.

Mr. Ennor then refers to some very important regulations, which he says ought to be observed under the Cost-book System, and which I may tell him are practically attended to under the Limited Liability Act. As to providing against "a committee of material sellers," I may inform him that, by the rules of limited liability companies, a director becomes disqualified if he is concerned, or participates, in the profits of any contract with the company; or if he participates in the profits of any work done for the company. Mr. Ennor again refers to the power to forfeit shares for non-payment of calls, and admits the evil I spoke of from the unlimited exercise of it, but repeats his remark, that if it should throw a larger burden than the remaining shareholders can or wish to bear, they have only to pay up their calls, give notice, and relinquish, when they know the end of it. This appears very simple, but is calculated to mislead the unwary, who are not accustomed to such sophistry.

As in my last letter I observed, it is a poor consolation to the *bona fide* and honest investor, who, with good reason, thinks well of the concern, and entered into it on the faith of his partners being able to carry on their proportions with him, to be compelled to withdraw and lose all his money, through the fault of others. I repeat, the uncontrolled power in which persons, either with or without character, position, or money, can enter a cost-book company, is the bane of the system. It is the cause of the abandonment of a large proportion of promising mines, and entails loss and injury on those who were able and willing to go on, and who would have reaped the advantages which their successors gain at their expense, through the defects of the "system." And if Mr. Ennor really knows as much of the cost-book as he would have us believe he does, he must be aware that paying up the calls and relinquishing does not enable the shareholder to "know the

end of it," for he is liable for all debts incurred during the time he was a registered shareholder, and he is not free until they are paid.

I fear, Sir, I have again occupied a large portion of your space; but I could not allow your valuable Journal to be the medium, through your correspondence, of propagating such fallacious statements. I have adhered as closely as possible to the main points of the question; and I would now conclude with a little advice to your correspondent—namely, to be more careful than he has hitherto been as to the correctness of what he writes.—*April, 20.* LEX.

## THE SUPPOSED LAND SLIP AT WHITBY.

SIR.—The intention of some of the shareholders in the Victoria Company to have this matter fully investigated, as stated by your last week's correspondent, is a wise determination; as, if competent ability has not been employed (and warning by qualified authorities can be proved), the directors will be placed in a rather equivocal position. To say the least of it, it is perfectly preposterous to suppose they can have done their duty to the shareholders by appointing such a person as reported at the head of the management. It is of some consequence, as well as satisfaction, to know the loss was not attributable to natural causes, and that, if the works be resumed, further mischief may be prevented. It also inspires confidence in the breasts of the owners of surrounding works, who would have had good reason to fear for their property had it been proved to have arisen by a land slip or shock of an earthquake. Many of our Leeds people, who are large shareholders, will be considerably affected by the loss of time and capital: they especially should demand a strict examination of all relating thereto, for their own and their fellows' benefit. I for one, Sir, feel greatly obliged by your inserting the communications on this subject in your paper, and assure you, Sir, you have done science and the shareholders a great kindness and benefit.—*Leeds, April 22.* A LEEDS JOURNAL.

## DRAINAGE OF MINES—TURBINES.

SIR.—Observe the letter on this subject, signed "A Miner," in your last Journal, and, in reply to some of his queries on the subject, would remark that it appears to me the most useful and convenient—and, perhaps, the only really available—circumstances in which to employ a turbine for the drainage of mines is where there is a natural run of water at the surface (not "hourly brought to surface" as your correspondent mentions, which I take to mean by the pump employed), and where an adit has been driven from some level below the surface of the mine. The deeper such an adit is, the more the water's mouth the better for a turbine. The fall of water from the natural run at surface to the adit could be employed in lifting the water from the bottom of the mine to the adit. And speaking generally, if the adit were at one-third the depth of the mine from the surface, then the quantity of water at surface requires to be double the quantity that is to be lifted from bottom to adit, and something more for friction and loss.

If the adit were not far from surface, a water-wheel would, in all probability, be the most efficient first mover; and, in most cases of short fall, the cheapest in the end. The following peculiarities in the degree of the rate of motion of the turbine and water-wheel must always be taken into account, independent of any peculiarities of situation, such as difference essentially fits each for the various objects that may be required. The turbine requires a great velocity, the water-wheel a slow motion, to work effectively; so that the turbine is fitted for turning a fan, a large grindstone, or the stones in a corn mill; also for most agricultural purposes, such as chaff-cutting, thrashing, winnowing, &c. In all these cases great velocity is required, and with a turbine can be obtained almost immediately from the first motion. The water-wheel is more adapted to the working of pumps, the moving of stamps, and such operations requiring a slow motion, which also can be obtained almost immediately from the prime mover, where such is a water-wheel.

From these remarks, "A Miner" will perceive that turbines are not in all cases of mining operations the most efficient engines. As I before stated, in cases where the adit is near the surface a water-wheel is the most adapted to the work required on a mine; but where the adit is at a great depth from surface an enormous water-wheel, or a series of water-wheels, to take advantage of the whole of the fall, than a turbine, notwithstanding its being less adapted to the peculiar work, will be the most efficient, compared with the cost. If the surface water and the fall to adit is not sufficient, in proportion to the depth below adit, and the quantity of water in the bottom that has to be lifted, together with the friction of machinery, then the turbine or the water-wheel can only be employed as an assistant, and some steam or other power must be used to eke out the deficiency of surface water. It would then become a question—supposing the surface water could not be increased from some other source—whether steam alone would not be more economical than a mixture of steam and water-power. It appears to me that these considerations require great care, and probably are only within the province of a skilful engineer to determine what power and what description of machine will be the most effective as a prime mover. If, however, I have succeeded in showing "A Miner" that turbines are not fitted for every case where water-power is required, and leaving out peculiarities of situation, not at all adapted for the general work of mines, my object is reached. —*Leeds, April 20.* ALPHA.

## EAST WHEAL RUSSELL.

NICHOLAS ENNOR, MATTHEW FRANCIS, AND WILLIAM METHERELL.

SIR.—My father being in Scotland for the purpose of inspecting some mining properties, he may not see your Journal for some days, and consequently will not be able to reply to the unfeeling attack of "Investigator," who would not presume to have done it with his real name attached; yet, when my father does get your Journal, "Investigator" may expect a reply, with compound interest, signed "N. Ennor."

In my opinion it will be quite time enough to create a stir about the East Wheal Russell when she has paid a tithe of the sum that has been squandered in search of ore where no ordinary miner would think of finding any; indeed, a sight of the goods is sufficient to convince any "competent" miner that no ore worthy of notice would be found in the original mine; yet, when we consider that our mining agents are similar to our statesmen, out of the mass but few are "competent" to form a correct opinion on anything but common place subjects, indeed it is sufficiently apparent that they are much behind the day in which we live. Talk of competent agents, if some of those considered by "Investigator" to be competent men were placed in the balance they would be found woefully wanting. I calculate the incompetent side would be heavily laden.

It has been said that "good men make good agents," with this I do not agree; it may be supposed to be the case by parties not competent to judge. But these are the facts, if men, ever so competent, happen to be made head captains in mines (often over the heads of really deserving and thoroughly competent men), through interest, and not from superior abilities, it cannot be a matter of wonder that we have, at the present time, some very empty-headed men superintending many of our largest mines, yet because they can return the ore discovered for them, and placed at their disposal, they are supposed to be very able agents.

Your "Investigator" says East Russell, at her commencement, was for some time superintended by Mr. Josiah Hitchens, who always spoke in favour of the mine. Would "Investigator" kindly mention a solitary instance of a mine inspected by Mr. Josiah Hitchens that he did not report favourably of. This being the case, it would be unfortunate for him indeed if they all prove bad, and belie the whole of his statements. We will admit that Mr. Josiah Hitchens is thought to be a great miner, a pioneer, and a person fully competent to judge for himself, as regards the value of a piece of mining property, yet when your readers peruse the following extracts from a letter received from this gentleman by my father, you will agree with me that we often form erroneous opinions of both men and things, until we happen to be convinced to the contrary by facts. Mr. Hitchens, in writing to my father to inspect a number of mines for him, says, respecting East Russell, "I have a large interest in the concern, and am consequently anxious to have your views and sentiments on it for my guidance. I shall be happy to pay and defray all fees and expenses attendant on your movements in inspecting, &c., and your report, if required by me, shall be privately my own property, I cannot be bound to make it public."

"Investigator," in his letter alludes to the Ashburton United Mines, and considers the engine about to be erected will be a monument to my father's conceit; but when I state to you that the engine has been at work but three months, and that only 350l. has been laid out in actual labour, and that to meet this 350l. we have 500l. worth of the goods in store above the adits, your readers will admit that the promoters of this mine may well and justly feel a little conceited; still, on the other hand, if it should prove a monument to his own conceit, it will be but one failure in a lifetime, whereas if you go amongst "Investigator" and his friends, at Tavistock for instance, including other parts of Devon, Cornwall, Wales, &c., you will see gutted engine houses, frowning in judgment, deserted count-houses, large enough for mansions, looming in the distance, and water-wheels, *alias* wind-mills, sufficiently numerous to take the conceit out of "Investigator" and his party; and, in fact, it has done so, for they blush so immoderately at their own folly, coupled with their living now better known, than trusted, that they are ratiocating for a time from the scene of their former exploits.

In conclusion, I will, on my own responsibility, place Ashburton United R. East Wheal Russell, and let time be the test; and instead of requiring to borrow plumes of East Russell party, I prognosticate we shall be able to lend them a few. I will now bid adieu to "Investigator," with the recommendation in future to subscribe himself Ennor and act the part of an impartial "Investigator."

WHEELCOCK, April 20.

## PORT PHILLIP AND COLONIAL GOLD COMPANY.

SIR.—I have read with great interest the report of Mr. Selwyn, the Government geologist, on the property of this company at Clunes, together with the resident director's statement of accounts; and it appears from Mr. Selwyn's report that the company now possess a very valuable property, which, if honestly worked, and the accounts accurately kept, will go far to retrieve the enormous losses hitherto incurred by the company. Mr. Selwyn's opinion as to the value of the property is thus highly favourable, the financial statement of the resident director is such that it betrays the shareholders, and especially the auditors of the company, to examine these figures, and bestir themselves at once.

I take the subjoined instances from the report of the directors, published in January last, and the report of the mineral ground at Clunes, circulated also by them in the March following. At page 33 of the former document, under date of Aug. 12, 1857, Mr. Bland states that he now receives 3l. per ton for all quartz crushed at Clunes. I now turn to the report of the mineral ground at Clunes, published in March last, and there I find at page 15 on Dec. 14, 1857, the sum of 1163l. 3s. 4d. was paid to the Port Phillip Company for crushing 413 tons of this quartz. By Mr. Bland's own statement, that the amount paid is 3l. per ton for crushing, he ought, therefore, to have received 1239l. instead of 1163l. 3s. 4d. Again, on Dec. 23, the sum of 1259l. 14s. is returned as having been received for crushing 476 tons of quartz; the amount which ought to have been received by this company was 1429l., instead of 1259l. 14s., causing on these two returns alone a deficiency of 247l. 2s. 8d. on what the Port Phillip Company ought to have received.

But this is not all. The directors' table us at page 42 of their report, published in January last, that "the average produce of the ton of quartz is 1l. 16s. 2d." and yet at page 15 of the report of the mineral ground at Clunes, the total produce of 413 tons of quartz is set down, on Dec. 14, at 2592l. 13s.; while, according to the reported average value of the produce, it ought to have been 2811l. 16s. 10d. And once more, on Dec. 23, the produce of 476 tons is given at 2892l. 11s.; while on the same calculation, as above, the amount ought to have been 3340l. 16s. 4d. Here again, then, are two more items involving deficiencies against the company, and amounting to 477l. 8s. 2d.

In the cases above cited, the Port Phillip Company appear to have lost hundreds of pounds on their receipts, according to the agreement under which we have been crushing quartz; and unless this can be satisfactorily explained, I have made out a strong case why the independent shareholders should muster strongly at the ensuing general meeting, which the directors are pledged to call within six months from January last.

If we can appoint an honest and energetic director, the company may yet retrieve its losses; but while scrip shareholders are content with grumbling, and refrain from helping themselves, and while men of business and experience will only publish letters of complaint, but take no steps to aid their brother shareholders when the hour of battle comes, matters must go from bad to worse. My earnest advice to all holders of scrip shares in this company is to come in and register your shares. You will incur no further

\* See my *Treatise on Metallurgy*, recently published, and may be had by order at the Mining Journal office, or of any bookseller, for other particulars as to the "ridicule," &c., showered on me for this important invention.



liability by registering than you have already incurred by the purchase, and you will then have a voice in the management of your own property. Again, then, I say come in and "register! register! register!"—April 21. A SHAREHOLDER.

WHEEL EDWARD.

Sir,—I observe in your last Journal rather a strange article respecting this mine, signed "Looker On." Now, in the first place, I beg to tell him that I am not one of those persons who delight in writing anonymous letters with a view of damaging any man's character, but, being one who wishes to do justice and to have justice done, I cannot allow the remarks of "Looker On" to escape unnoticed with impunity. If "Looker On" feels, and moreover believes, that Capt. James Carpenter and Hodge have virtually the right to claim all the credit for bringing this mine to its present position, he will find that he has been badly misled, or that he has been the instrument of causing a gross and willful falsehood to be printed and circulated.

It is not my wish to cavil with Captains Carpenter and Hodge as I have never had anything to do with them as far as the working of the mine is concerned, either before they left the mine or since, which is now more than four years ago, and during which time I have been the resident agent, consequently ought to know something of what has been done during that period; and, also, who has done the work and brought the mine to its present position.

But, to turn again to the letter of "Looker On," I think it only fair that he should answer the following questions before he makes another attempt to do me further injury:—1. What was the extent of the operations and machinery erected when Captains Carpenter and Hodge left the mine in 1854?—2. What part of the mine, or in doing what work, has 4000l. been misapplied?—3. What was Capt. Hodge's views of the mine generally, and by what method of working could he have possibly brought the mine to a position to have paid dividends in 1857?

Now, Sir, if "Looker On" knows one thing he ought to know the other: If he knows all about the mine, and to whom the credit belongs for bringing her out so far, and will fearlessly assert it, he need not fear attaching his name to what he may have to say in reply to this letter.

M. H. EAST.

Meetings of Mining Companies.

GREAT WHEEL ALFRED MINING COMPANY.

The general meeting of shareholders was held at the offices of the company, Crown-court, Threadneedle-street, yesterday.—Mr. FIELD in the chair.

Mr. FIELD, Jun. (the secretary), read the notice convening the meeting, and the following report:—  
April 22.—Since our last general meeting Copper-house shaft has been sunk 9 1/2 fms. below the 180; the level in the last 2 fms. has greatly improved, and is now worth 14l. per fm. We purpose sinking 6 fms. more, from which point we shall extend east and west on the course of the lode. In driving east we expect shortly to meet with some bunches of ore that are gone down in the bottom of the 180. In driving west a few fathoms we shall meet with the elvan course, in which the lode seldom fails to be productive. The 180 has been driven west 10 fathoms—opening tribute ground; a cross-cut has also been driven south in this level, intersecting some small branches, but of no value. The 180 in the present state is 4 ft. wide, of a very promising character, and producing some excellent ore. A winze from the 170 has been communicated with this level about 4 fms. behind the end; the lode in the upper part of it was exceedingly large, and worth for the whole width from 30l. to 40l. per fm. From the usual dip of the ore it is more than probable that this course of ore will be seen in the 180 shortly. The 170 has been driven west from the point of the "horse," on the south part of the lode, 6 fms.; producing a little copper ore and tin; the lode in the present end is changing its character, and resembling that of the winze a few fathoms west: 15 fms. west of the latter-mentioned end a cross-cut has been driven south, and we are daily expecting to intersect the south part of the lode. Immediately over, a winze is sunk below the 160 fm. level 8 1/2 fms. deep, where the lode is worth 20l. per fm. The 160 has been driven west, on the south part, 21 fms.; 13 fms. of the latter have been worth upwards of 20l. per fm. The present end is worth fully 30l. per fm.; this level has also been driven west on the north part, which has been unproductive for the whole length. An excellent discovery has been made in a tribute pit in the bottom of this level (160); the lode is still looking exceedingly well, worth 100l. per fm. The 148 has been driven west 6 fms., producing stones of copper ore; this end is scarcely far enough west to meet with the run of ore now in the 160 fm. level. Since the last general meeting our western ground is very much improved, and we may safely say our returns will increase.—M. W. MICHELL; WILLIAM BUCKLEMAN; Wm. ARTHUR.

A statement of accounts was then presented, from which the subjoined is condensed:—

Balance last audit.....	£ 771 18 5
Mine cost, Dec. to Feb.....	2699 19 10
Merchants' bills.....	1824 18 11
Bundries.....	55 9 5 = £3592 6 7
Call received.....	£ 768 0 0
Ore sold.....	3391
Materials sold.....	55 0 11 = 4214 7 0
Balance against adventurers.....	£1137 19 7

The report and accounts were unanimously adopted.  
The CHAIRMAN said it would be necessary to make a call to pay off the balance against the mine. He would propose that a call of 4s. 6d. per share be made.  
The resolution was seconded and carried unanimously.  
The CHAIRMAN having explained by a plan the present state of the workings, the proceedings terminated.

WHEEL UNY MINING COMPANY.

A quarterly meeting of shareholders was held at the offices of the company, Moorgate-street, on Tuesday. Mr. W. MONT in the chair.

Mr. HUTT (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed.

A statement of accounts from Nov. 30 to Feb. 28 was presented, from which the following is condensed:—

Balance last audit.....	£ 539 3 2
Labour cost, Dec. Jan., Feb.....	1458 1 5
Merchants' bills.....	691 16 1
Lords' dues.....	97 10 6
Office charges.....	19 6 6 = £2965 17 8
Tin and copper ore sold.....	£1816 9 3
Calls received.....	512 0 0 = £228 9 3
Leaving balance against mine.....	£ 477 8 5

Capt. ROWE's report, as follows, was then read:—  
April 17.—The 50 fm. level is being driven west of the engine-shaft, by six men, at 12l. per fathom. The lode for the last 2 fms. is worth 10l. per fathom for tin. We are 12 fms. short of the place where the tin was found in the 60 fm. level. In the 60 fm. level, west of the engine-shaft, we are driving a cross-cut to see the south part of the lode; we are expecting to cut it in a few days. It is on this part that we have the tin. 15 fms. behind the cross-cut. We have 60 men working on tribute on the old lode, at an average of 12s. in 1l.—Copper Lode: The new shaft is sinking under the 40 fm. level by nine men, at 36l. per fm.; it is now 5 fms. below the 40 fm. level. The 40 fm. level is being driven east of the new shaft by six men, at 6l. per fathom; lode 4 feet wide, worth 10l. per fathom; in the last 3 feet we have met with good stones of copper-ore. Our principal workings on the old lode are west of the engine-shaft. From here we are raising 5 tons of tin per month. What we want is more ground laid open, so as to enable us to put in more men to break tin-stuff. We have machinery on the mine of sufficient power to return double the quantity that we are raising at present. We are much pleased to see the lode improving in the 50 fm. This level has hitherto been altogether unproductive. We are in hopes of being able to put men to break tin from the back of this level soon. The granite in our new shaft is of a very favourable character. We have had to fix a new lift of pumps in the 40 fm. level, which has in some measure impeded our progress in sinking. The copper lode is opening up tribute-ground for tin in the back and bottom of the 40 fm. level. The last tinstuff sampled from this level made near 3 cwt. of tin per 100 cwt. On the whole, our circumstances are better than they were three months since. Our prospects are still very good.—JAMES ROWE.

The CHAIRMAN, in reply to a shareholder, said that the current cost would be hoped to be met by the return on a call to pay the balance against the mine, as shown in the accounts. The return would be 2s. 6d. per share. There was a considerable sum paid for exploring towards the western ground, where the tin lode was getting much richer. By the section which lay on the table the shareholders could see the object they had in view, as well as the distinction between the copper and tin lodes. The shaft was being sunk 1 1/2 fathom per month, and they would be down to the 60 in about 12 months. The wages of the men had been lessened, which had occasioned the loss of many good hands.

The accounts and agent's report were then adopted, and a call of 7s. 6d. per share made. Thanks were then given to the committee for past services (who were re-elected) and to the Chairman, which terminated the proceedings.

BULLER AND BASSET UNITED MINING COMPANY.

A special general meeting of shareholders was held at the offices of Mr. William Charles, Attorneys, on Tuesday. Mr. R. DUKES in the chair.

Mr. CHARLES read the notice convening the meeting, which was called to adopt measures for disposing of certain shares for the benefit of the company. Mr. Charles remarked that, upon looking into the affairs of the company, he found the requirements of the mine were such that made it necessary to take immediate steps to realise money upon the shares, or they must make a call to work the mine properly. To fortify his opinion, he sent a circular to all the shareholders holding above 100 shares, requesting them to meet, to advise what course to pursue. Resolutions had been prepared by Mr. Berry, and would be submitted to the meeting; but it was necessary to call this special general meeting to get them out, should they succeed in getting the consent of the Court of Bankruptcy to the arrangement.

Mr. TURNER (solicitor for Mr. Oliver) wished to know in what capacity Mr. Berry attended?—Mr. BERRY said for the company, and also for a creditor and a large shareholder. Mr. CHARLES then read the following resolution:—  
That (subject to all necessary consents being obtained from the assignees in bankruptcy of the estate of Mr. Richard Tredinnick) the 1800 shares in the Buller and Basset United Mines, at present standing in the name of the said Richard Tredinnick, be transferred into the names of Messrs. Robert Fell, J. S. Vickers, W. H. Vickers, and Wm. Charles, upon the trusts hereinafter mentioned. That as soon as the said 1800 shares shall be transferred as aforesaid, that the said Robert Fell, J. S. Vickers, W. H. Vickers, and Wm. Charles be and they are hereby empowered to realise the whole, or any part thereof, and in such numbers as shall from time to time be determined by them upon trust, to apply the proceeds thereof first in payment of the company's claims against the estate of the said Richard Tredinnick; and, secondly, to pay the surplus, if any, to Mr. Isaac Nicholson, the official assignee in bankruptcy to the said estate; or if the bankruptcy of the said Richard Tredinnick shall be annulled, or superseded, prior to such realization, then to pay such surplus, if any, to the said Richard Tredinnick.

Mr. BERRY said that the arrangement could not be carried out without a special general meeting, even if they obtained the consent of the Court of Bankruptcy.  
Mr. OLIVER wished to know whether the shares would fetch sufficient to cover the whole of the debt due by Mr. Tredinnick?—Mr. CHARLES considered they would.  
The CHAIRMAN said the value of the thing was what it would fetch. Whatever they sold for would be desirable, rather than hold them in the present position.  
Mr. CHARLES said he had heard of many that were willing to come into the company.

He felt certain that he should be able to realise in two months sufficient to pay all debts and leave a good balance to go on with the mine.

Mr. TURNER said his clients had entered a claim for 2000l. against the estate, and the bankruptcy could not be superseded until that was satisfied. That claim must be either turned into a proof or expunged. What they were asking by the resolution to do was to expunge it. Mr. Oliver and Mr. Martyn were anxious to do anything for the benefit of the mine, and he (Mr. Turner), therefore, wished to know whether the meeting was acting independent of Mr. Tredinnick?

Mr. BERRY said Mr. Tredinnick had nothing to do with the meeting; his clients had reason to be dissatisfied with him, but they did not want to injure the property. He had had a conversation with Mr. Charles, and they had come to the conclusion that the course proposed was far better than selling the shares under the bankruptcy.

Mr. TURNER suggested that they should add to the resolution that the price at which the shares sold should, from time to time, be regulated by the committee of management. After an angry discussion between Mr. Turner and Messrs. Vickers, the names of the trustees were altered as follows:—Messrs. Richard Duke, N. Harvey, Wm. Charles, and J. S. Vickers. The resolution in its amended form was then unanimously carried.

Mr. TURNER said he would suggest to his clients, Messrs. Martyn and Oliver, that they be requested to expunge their claim against the estate. A resolution was then proposed, seconded, and carried unanimously. That Messrs. Martyn and Oliver be requested to expunge the claim on behalf of this mine which they had entered on the proceedings in bankruptcy under Richard Tredinnick's estate.

Mr. LAWRENCE, for Mr. Tredinnick, at the conclusion of the business, reminded Mr. Turner that before they could carry the resolution into effect the bankruptcy must be superseded, as the Court could not consent without the official assignee not having the power to give up certain property to pay a particular claim.

A vote of thanks to the Chairman terminated the proceedings.

WHEEL ZION MINING COMPANY.

A general meeting of shareholders was held at the offices of the company, Threadneedle-street, on Thursday. Mr. R. HODGSON in the chair.

Mr. DUNFORD read the notice convening the meeting, and the following report:—

April 20.—In presenting my report for the meeting, I must confess that our prospects are not of that cheering character we could desire, or as the shallow workings on the lode have led us to expect. The development of the lode in the deeper levels holds out no great promise of success, neither is there any particular point to which we can look with reasonable hope to the opening of ore ground in sufficient quantities as to pay the cost of taking the ore away. In the western part of the mine the back of the 30 produced a fair quantity of ore for about 30 fms. in length; here the north lode was found in connection with the main one; below this level, the lodes being separate, we have not met with anything more than partial bunches. The two lodes are running parallel so far east as the cross-course, by Richards's shaft; to the east of this, we have done nothing towards proving the north lode. Should the north lode be found to approach the main one, and intersect it to the east of our workings in the Gleebe, we have great reason to expect a bunch of ore; as is the case for Calstock, where our north lode, which runs by them a quarter of a mile, intersects the main lode, which runs to the north of this set. This point will be proved by driving the Gleebe adit south. In the 50 west, on the north lode, we have met with a small cross-course, producing lead ore and fluor-spar; the lode has been in small branches, occasionally producing stones of copper ore. The 65 is 16 fms. to the west of the 80; lode large, hard, and poor. The 50 west is 30 fms. behind the end, we have a winze going down on a little more ore, about 3 feet long, producing 14 tons of ore to the fm. We have pretty well proved this part of the mine to the line-shaft; the 50 cross-cut north, at the 80 cross-cut north, at the 80 fm. level, the latter level is about 20 fms. from the reserve ground to the west; the 40 is about 10 fms. behind the 30 so that we have no long run of ground in this part of the mine. The ground has been proved south of the main lode by a cross-cut in the 40; 20 fms. by a second cross-cut in the 65, 30 fms. east of Richards's shaft; and, by a third cross-cut in the 80, 30 fms. west of engine-shaft, about 4 fms., the latter is in the course of driving. The 50 and the 65 east are within about 30 fms. of the Gleebe sett; the lode in the latter, at this time, is rather small and poor. I advise your calling in one or two competent men to inspect and report. The Gleebe adit level has been driven a shaft on the said level; as soon as this work is accomplished, drive a cross-cut south, to prove the ground. At the foot of the hill, near the former bed of the river, we have been endeavouring to sink a south lode, and find the water rather too quick for us, having lately had very heavy falls of rain; we intend resuming this in the course of a month or two, when the springs have fallen back; the lode is from 18 in. to 2 feet wide, containing spots of copper ore. In the south part of the set we are driving Moorhead adit level south, in order to prove the south lode, which we consider of great speculation. Okef Tor lode, from which they are about to commence mining returns runs for 700 fms. 80 fms. 3 ft. since we began in May; we now find the air deficient, and purpose sinking a shaft on the said level; as soon as this work is accomplished, drive a cross-cut south, to prove the ground. 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## FOREIGN MINES.

ST. JOHN DEL RAY COMPANY (LIMITED).—Advices from Brazil.—			
Morro Velho, Feb. 18.—The produce for Jan. is 24,554 oitavas=255,697 lbs. the tray, and is thus derived:			
From	Oitavas	Tons stone	Oitavas per ton.
Adrian (Bahia stone)	13,258	4182-6	3-216
" Adria (Bahia stone)	5,544	1765-0	3-382
" Soutworth (W. & L. calc.)	3,021	1586-4	1-904
" Coswam (Gamb.)	508	229-6	2-212
" Armistia	1,311		=0-181
" Praia	792		
Total	24,554	7333-6	3-281
The produce for January 24,554 oitavas, (less duty, 3 per cent., 401 oitavas)=24,043 oitavas, at 7s. 8d. per oitava, £1816 9 8			
The cost for Jan., at 63,263 oitavas, at 2s. 3d. = 7183 0 8			
Profit			£2033 9 8

This produce is something better than that of Dec., and would have been still better had it not been for the interruption caused by the excessively heavy rains in the latter part of the month, and in consequence of which 265 tons less of stone were stamped than in Dec., making a difference of nearly 800 oitavas. The rate per ton is higher, being 3-281 compared to 3-140; and I trust there will be a further improvement in this, by a larger supply of stone from the mine, allowing a larger proportion of the poorest to be thrown out.

**REDUCTION DEPARTMENT.**—Stamps working 31 days, average 129-61 heads; stamps working 123 heads, 30-44 days; arrastres worked each 25-58 days. The different operations in this department have gone on very fairly, considering the weather we had in the latter part of January and beginning of this month. We may consider ourselves very fortunate indeed to have suffered so little, and all is going on as usual at date (Feb. 17).

**PRIMA.**—The stamping-mill was brought to a standstill for four hours by the wheels being water-logged during the highest flood, without any damage being done. The other side (16 heads) of the Hockin stamps should be completed in another week; the side still working does duty very satisfactorily. Of course, during the wet season the getting the cascadero from the bed of the river is liable to interruptions, but care is taken to have a supply in reserve, otherwise the produce would suffer; for, as far as experience hitherto goes, the sand cannot be properly stamped without a mixture of cascadero or stone.

**MINES.**—All the operations have been going on regularly, except during the heavy falls of rain, when a great part of the force had to be employed in repairing damage done on the roads and at other places by falls of earth, which were very numerous, though most fortunately none happened of a very serious nature. Till the rain ceased, however, and we had a few days of dry weather, we were in a constant state of anxiety, but we trust we are now pretty safe for the season. The free men also did not attend well during the heavy rains, and so much water found its way into the mines that sinking was interrupted. The supply of stone was, therefore, short, and the stamps had on that account to be driven at a slower rate.

**EXPLORATIONS** are prosecuting steadily, but as yet without any decided result. In the 20 ft. level the width of the lode has varied considerably.

**FREE LABORERS.**—They continue to attend as hitherto, and do their work regularly. As stated in my diary, a good many of them were afraid to go underground for two days on which the heaviest rain fell.

**Morro Velho, Feb. 27.**—Gold extracted to date, 14,863 oitavas, from 1087-7 cubic feet of sand (result of 19 days' stamping), yielding 13-67 oitavas per cubic foot, and from 4527 tons of stone, equal to 3-286 oitavas per ton.

**REDUCTION DEPARTMENT.**—Stamps working 19 days, average 130-70 heads; working 132 heads, average 18-81 days. Since my last report the different processes in this department have gone on regularly, but little interruption was caused by the heavy flood of the 20th inst., when the water rose 3 feet deep in the accommodation house, and water-logged for some time the Lyon wheel. The statement given above shows that the produce of the first 19 days of this month is upwards of 400 oitavas greater than that for the first 20 days of the preceding month, and I calculate that for the 28 days we shall have nearly 24,000 oitavas. The machinery is all working well.

**PRIMA.**—On the 24th inst., late in the evening, the second west side (16 heads) of the Hockin stamps was set in motion, and has been working well.

**MINES.**—There is nothing particular to note since my last, the different operations having gone on in the usual routine. We have been able to raise more stone, and have consequently been able to reject some of the worthless stuff—46 loads—36-8 tons, have been thrown out this last week, and thus the value per ton of the stone stamped raised, and also the total yield.

**UNITED MEXICAN MINING ASSOCIATION.**—Major Farrell, Feb. 15-27.

**MINE OF JESUS MARIA Y JOSE.** The works in this mine continue favourable, the frentes of San Pablo, which had somewhat deteriorated, and was reduced to a width of 1 1/2 varas, has again resumed its former dimensions, and shows a width of one of a good class to the extent of 3 varas. In the frentes of San Miguel a block of tepalcates (here called a callo) has appeared, and has divided the work into two, but the ore in these averages 3 varas in width, and is of a very good class. The frentes of San Gabriel, to the south, is not yet free from the interruption mentioned in my last, but has so far improved that we have reason to think the interruption is but temporary. A cross-cut to the upper wall of the vein has been commenced in the level of San Miguel and San Gabriel to speculate and make trial of the direction. The pozo of Dolores still continues our best working, and yields abundance of ore of a somewhat improved ley. The extraction from the mine for the fortnight elapsed since I last wrote has been 1200 cargas a week, and having amassed a sufficient quantity in the haciendas to guard against sudden interruption from the absence of carra, mules, or otherwise, we shall set on Thursday next, and, in the following report, have great hopes of being able to transmit to you a favorable account of the proceeding.

**Feb. 27.**—All the obras muertas (dead works) are completed, by which I mean the shaft and the roads in the mine—viz., the communication between San Maximino and San Pedro and the new Boca Mine, and means are, therefore, entirely devoted to the extraction. The frentes of San Pablo continues to yield good fruit, and has a width of ore of 2 1/2 to 3 varas. The pozo of Jesus, driven from the level of San Pablo, shows in half its extent ore; the pozo of San Pablo, driven from the same level, has ore throughout. In the frentes of San Miguel (as reported in my last) a block of tepalcates (the mountain rock) has divided this work, and still continues to do so. The frentes of San Gabriel, south-east of the pozo of Dolores, has not improved, and seems to follow the character of the works lately tried in that direction, and which gives little encouragement to proceed with them. Between this frentes and the pozo of Dolores it was proposed to make a cross-cut (this has been done, and the result, as heretofore mentioned, was not favourable) to the upper wall of the vein; near this point the two veins unite in one body of vein, which, however, does not at the point referred to show much ore. It is proposed to continue the frentes of San Gabriel to a further extent of 10 varas, and then again by cross-cuts to test the vein both to the upper and lower wall. The pozo of Dolores continues very good, containing a width of ore to an extent of 10 varas by 9 in length, and from this, and the other works previously enumerated, an extraction of from 1600 to 2000 cargas may now be expected weekly, and an additional number of workmen have been employed to carry this into effect; 15 herramientos (30 men) by day, and as many by night, to the present number of 45 herramientos, making in all 90 herramientos, or 180 men, by day and as many by night. It is also intended to place buzones in the upper part of the mine, in the levels of San Maximino and San Pantaleon, from which we are lead to expect some good results. The practice of employing buzones is now very general throughout the district, and indeed there is no mine of any importance here which has not a portion reserved for their operations; it diminishes the expense of working and is often attended with excellent results, such parts of the mine worked by buzones can at any time be resumed by the aviajeros, or principals. The extraction of ore in the week just concluded has been 1600 cargas. On the 18th inst. we sold 867 cargas for \$5312, and on the 26th inst. about 500 cargas for \$3041, making the week 728 cargas have been remitted to the haciendas. Mr. de La Trinidad drainage is still carried on.—HACIENDAS OF DOLORES AND DURAN continue improved as heretofore.—QUICKSILVER: No change of price, but remains \$55 per quintal, as at the 18th inst. Stock in use and in store, 13,463-9 lbs.

**REPORT OF THE GOVERNMENT INSPECTOR OF MINES.**—Guanaxuato, Jan. 28: According to your desire, I yesterday visited the mine of Jesus Maria y Jose, and, having descended to examine the interior workings, I have to report as follows:—The shaft carried down to the level of the lower frentes (San Martin) communicates with it, and forms the last despacho (landing) from whence the ore is dispatched to the surface, and the shaft is the shaft of San Pablo in the frentes of the mine, and has a width of ore of 2 1/2 to 3 varas. The shaft possesses three dispatches instead of one only which I found at my inspection in September last; there only remains a small reservoir to be made at the bottom of the shaft to make that work complete. The work (or pozo) of Dolores is in a very favorable state, containing good fruits throughout the body of the vein, notwithstanding its amplitude, which is here very great, this affords a favorable indication that the vein will continue to yield well at a greater depth. Near the level of San Martin the frentes have been formed,—that of San Miguel at the north, which is producing fruits in abundance, and the frentes of San Gabriel to the south, which is less productive, but has been formed, and the frentes of San Pablo to the west, which is also productive, and follows a separation in the body of the vein caused by the interposition of a bank, and is carried in a direction north-west. Above, in the frentes north of San Pablo, two pozos are commenced; both are presenting a favorable aspect, and some good ore is in course of extraction. The above-mentioned being the five points which are actually producing the ore, 25 herramientos (herramiento consists of two men) working by day and night. The communication between the frentes of San Pedro and that of San Maximino is about to be concluded (it is now finished), the new working to meet from the opposite points. San Maximino is the most advanced work to the north-west, and is upon a different vein to that of Dolores. Also, I found finished and in progress, the frentes, by means of which all operations connected with the mine (ingress and egress, &c.) are concentrated in one patio: this new entrance possesses less declivity and good stairs. The ventilation throughout the works of the mine, and in their communications with the shaft, cannot be better; and, such is the present state and disposition of the workings, that any improvement in the class of fruits is likely to produce great results. Such is the opinion I entertain as Perito Facultativo de Minas, and which I report to you in fulfillment of the commission you entrusted me with.—JOSE M. MONTEIRO DE ESPINOSA.

**WILDBERG MINING COMPANY.**—Advices from Capt. Z. Walls, April 17.

The value of the different underground bargains are just as last reported, but I am sorry to say that, owing to the scarcity of miners, our raising for the first half of the month is much below our estimate. Out of the 180 men whom I reported as being employed underground last setting-day, not more than 50 are now regularly at work; neither do I see any hope of an increase until the spring season be over, for most of the men from this neighbourhood have a little land now sown, and they are engaged to plant about this time of the year. The building of the steam whine-house is so far completed that the engineer to commence fixing the engine, and the masons are now employed on the boiler-house. The pulley stands are fixed, and I hope the whole work will be completed and the whine commencing hauling in the first week of May.

**CENTRAL AMERICAN MINING COMPANY.**—Advices from Alotepoque, Guatemala, to March 2: I have been enabled to keep up the consignments of ore; since the date of my last letter I have dispatched 156 bags of first-class ore, and have nearly ready 120 more, which will be sent away before the middle of this month. I find that since November 3, the date of my first consignment to date, about 36 tons of ore have been transmitted to the coast. The stops in San Domingo level are in splendid ore; we have extracted from them and from stop No. 1, in back of Dolores level, during the past month, 12 tons 12 cwt. of ore, giving an average assay of over 300 ozs. per ton for silver; this ore has been raised and dressed at a very trifling cost. In No. 1 stop in back of Dolores level we have encountered a nice branch of San Domingo and Dolores' cross-course; this is being followed. The eastern ends of San Domingo and Dolores' levels, although presenting good indications of a course of ore being near, are yielding at present but little saving work. San Vicente end is still unproductive. The most eastern winze between these levels being now some considerable distance behind the ends, it has appeared to me advisable to sink two others nearer these parts, not only for the purpose of maintaining the ventilation of the eastern part of the mine, but also to further prove the ground already passed over. Captain R. Williams will commence these works forthwith. Mine Agustin Report: San Pantaleon. During the month San Vicente level has been driven east 5 1/2 varas, by two men, at \$4 1/2 per vara; San Pantaleon level has been driven east, by two men, and two boys, at \$5 per vara; the lode in this

is 3 1/2 ft. wide, producing from 8 to 10 cwt. of "brown" per fm. Two men have driven east in Dolores level 4 1/2 varas, at \$5 per vara; as yet no improvement has taken place in the lode, although it still presents a very promising appearance, and is now 2 1/2 feet wide; the ground has been uniformly hard throughout the last six weeks. The lode in No. 1 stop in back of Dolores level, which has been wrought by two men and a boy, is worth 15 cwt. of ore per fathom. No. 2 stop, in back of the same level, which was commenced at the beginning of this month, has also been worked by two men and a boy; the lode is worth from 8 to 10 cwt. of ore per fm.; this stop extends east from the before mentioned, as far as the ladder-road rise to San Vicente level. The lode in No. 1 stop, in back of Dolores level, is worth 6 cwt. of rich ore per fm.; one man and a boy have been engaged here. There has been a main driving west in this level during the last week, as the lode was intersected some 5 or 6 varas east of the cross-course, by which means we have been enabled to lengthen the last-mentioned stop. We hope to raise several tons more of rich ore from this point. The ore raised and dressed in the month consist of nearly 10 tons, assaying 315 ozs. of silver per ton; 2 1/2 tons, assaying 324 ozs. per ton; 1 ton, assaying 193 ozs.; and 6 tons, assaying 117 ozs. per ton.

**PONTIQUA MINES.**—Captain Rickard, April 16: Roure: The rise in the back of the 100 metre level, on the St. George's lode, is up 3 metres from the back of the level, and is somewhat improved, now laying on good stopping ground. The 40 metre level, south of St. Peter's shaft, on St. Mark's lode, is still promising, and producing a little ore. The same level south from cross-cut, on Emeline's lode, is looking well, being 10 ft. wide, ore throughout; we estimate it worth 4 tons of ore per fm. The 20 metre level, south from Anna's shaft, on St. Mark's lode, is looking kindly, and produces saving work. The adit level, north from St. Peter's cross-cut, on the St. Mark's lode, is further improved, now worth 2 1/2 tons of ore per fm. The same level, which was commenced at the beginning of this month, has also been worked by two men and a boy; the lode is worth from 8 to 10 cwt. of ore per fm. 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## BRITISH MINES

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30 feet has been hoisted to the level above; the 10 driving wheel continues to yield about 7 cwt. of ore per fm.; the slope in back of the 30 does not look so well as when I wrote it last. No. 10 has not yet been met with in either of the cross-cuts. The other parts of the mine are without alteration to notice. The surface operations are being pushed on with all speed.

**NEW TRELLIS.**—J. Prince, April 19: Carr's engine-shaft is sunk 5 fathoms 3 feet below the 50, in the bottom of which the lead has been cut into about 18 in. wide, producing good stones of yellow copper ore, blende, &c., and it looks much better at this depth than it does in the cross-cut in the 50. At a few fathoms further east of this point, however, a good ore lode is gone down, and from its dip will soon be met with in the bottom, from which a continuous shoot of ore may reasonably be expected, and when the shaft is a little more opened upon the 50 will be drained, with a winze might be sunk, and one immediately raised; and from the nature and quality of the ore, specimens of which I have forwarded to the office in London, surely we are justified in expecting the most favourable results. The lode in the extreme end, which has for a day or two been discovered by a slide, is resuming its former appearance. I regret that we have not yet reached the counter part of the lode in the 40 west, the ground having been unusually disturbed by a series of cross-cuts, which have seriously retarded our driving; we are, however, extending the cross-cut in the right direction, and judging from the quantity of water issuing from the ground, we cannot be far from the lode, and every effort is being made to accomplish this important object. Although the time taken to develop the lode at the points now in active operation is longer than was anticipated, yet I am still sanguine that our labour will ultimately be crowned with success. The engine and pitwork are in good working order.

**NORTH DOWNS.**—W. Johns, J. Grenfell, April 19: The engine-shaft, sinking below the 20, is to be down the required depth in about a week from date, for the reception of a 20 ft. lift; the lode is without any alteration—split up. In the 30, east of engine-shaft, we have been recently cutting several branches from the south, falling in with the main lode, making it altogether about 2 ft. wide, composed of munda and yellow ore—a very promising lode, and likely to be laid to good results. In the 20, east of Bennett's shaft, the lode is as last reported, producing good stones of ore. The 10 cross-cut south is progressing favourably, and the character of ground good for mineral. Our tribute pitches continue to yield their usual quantity of ore.

**JOHN GRENELL.** April 21: Since our report was written yesterday there is an improvement in the 30 east of engine-shaft, where the lode is now worth 207 per fm. This is a continuation of the shoot of ore in the winze sunk below the 20; the end is 17 in. behind the winze, and bids fair to open some productive ground.

**NORTH FRANCES.**—P. Hosking, April 17: The lode in the 48 fathom level west is 2½ ft. wide; it is a very promising lode, looking better than it has for some fathoms driving. We have not driven the 36 fm. level for this week, as we could not draw the shaft, but the winze is to commence working on Monday morning; then we shall resume sinking the shaft and driving; it is not. You say it was reported that we had found the cross-cut in our east. It is not so; we expect to find it every day. We found the cross-cut yesterday in the 20 fm. west of the 20, where we are searching for. You may rely on it that it will give me the greatest pleasure at all times to inform you if there be any improvement in the mine.

April 22: We have found two cross-cuts; each at the surface are about 20 fms. apart; they run through West Bassett and South Frances. There are two cross-cuts discovered in West Bassett further west, which run through the western part of our set. We shall sink a new shaft at once.

**NORTH STAFFORDSHIRE CONSOLS.**—Wm. Silvester, April 21: The state and prospects of the mines are very encouraging. In the Duke's adit the men are driving up two veins of spar and calc, about 4 feet apart, with cross-falls coming in at every point. The rock is becoming greyish with bed-joints; these veins are coming nearer together, and when they meet will be found in a few fathoms more.

We are near under the old hillcocks and workings at surface, where plenty of ore has been obtained. The smoke is becoming rather oppressive for the men. Six men have taken this bargain at 80s. per fathom.—Hurt's Adit: In the forefall it appears as if the men were near cutting into ore-bearing ground; in the driving of the last 4 ft. there are the cross-joints of coloured spar and calc, and a fine bed-joint going ahead, in the face of oxide of lead in it. We are near under the old workings at surface, in the flat of the hill, or field, where plenty of ore has been found; this forefall is direct to the winze-shaft, where there is plenty of ore at the bottom overflowed with water. The last bargain for driving was set at 84s. per fathom.

**NORTH DRY.**—R. Williams, April 21: The lode in the 30 end, driving west of Gill's shaft, is producing some very rich stones of copper, and has generally a very promising appearance for the production of the mineral. The slope in the back of 20, west of Gill's shaft, is producing good spar for tin. In the slope west of old winze shaft, the men are preparing to fix timber to secure the back for depositing any attle that may be broken in during stoping. At surface we are proceeding with the different arrangements as fast as we possibly can.

**NORTH WHEAL ROBERT.**—J. Richards, April 20: Murchison Engine-shaft: In the 62 fm. level west the lode is 3 ft. wide, composed of quartz, munda, and prlan, and a little ore of good quality, and is very promising. In the 52 fm. level west the lode is large, 5 ft. wide, and very promising, containing capels, munda, quartz, and ore, worth 1 ton per fathom. In the 42 fm. level west the lode is not so good, having become mixed with killas, and for the present only worth ½ ton of ore per fathom; but the present appearance indicates an improvement. In the winze sinking below the 30 fm. level the lode is 3 ft. wide, containing munda, quartz, capel, and ore, worth 3 tons per fathom. The lode in the rise in the back of the 30 fm. level is not for the present so ore; it is, however, promising, and worth 1 ton of ore per fathom.—Trial Shaft: In the 30 fm. level east the lode is 18 in. wide, composed of quartz, flookan, and a little munda. In the cross-cut, 60 fms. west, the south part of the lode is cut through, proving it to be 4 ft. wide, composed of capel, munda, quartz, and ore, worth 1 ton per fathom. A drive is now being extended west thereof on the ore part of the lode, which is worth 1½ ton per fathom. The south part of the lode, sloping down on the south side of the boundary winze, continues to look well, and is worth 3 tons of ore per fathom.

**NORTH WHEAL TRELLIS.**—H. Hodge, April 21: Macgill's shaft is sunk 6 fms. below the 27. The lode in the 27, producing the shaft, is 1 ft. wide, producing good stones of lead. In the rise in back of this level it is 1 ft. wide, producing good stones of lead.

**OKEL TOR.**—W. B. Colson, April 21: In the 65 we have cut through the lead lode, which is from 4 to 5 ft. wide. The men are now driving south to intersect the copper lode in a very favourable channel of ground, and speedily for driving in. In the 50, on the copper lode, we are driving on the south part of it, which is from 2 to 3 feet wide, and containing some good ore. The horse of killas between the two parts of the lode is 6 feet wide; in the present end these two parts of the lode will soon unite again, when we anticipate a very productive lode. The pitches in the 50, 55, and 59 ft. levels are yielding much as usual. Our crusher went to work this week; it is a very powerful one. We are now crushing the different tributes' piles of ore, but fear we shall not be in time to sample until next month.

**OLD TOLGUS UNITED.**—G. Reynolds, April 20: The lode in the shaft is 2 ft. wide, improving in its appearance. The lode going west, at the 32 fm. level, is also looking better, and producing good stones of lead. We are pushing on the drive in the 30, and hope to cut the first lode in about three months, or something less, from this.

**PEN-DON-DREA.**—Capt. Carpenter, Delbridge, and Thomas, April 17: We have cleared and secured the main adit, drained the water to the 90, and the men resumed working in that level. In the end, east of junction, the lode has been discovered by a slide, which we had cut through, and broken some very good stones of tin. In the 60 fm. level, west from engine-shaft, on the engine lode, the ground is not quite so hard; the lode is fully 18 in. wide, producing a little copper ore. Our tribute stones are much the same as last reported. We have sold for March 22 tons 19 cwt. 1 gr. 16 lbs. of black tin, making for the quarter 65 tons 2 cwt. 3 grs. 2 lbs., realising 4099s. 14s. 11d., and have prepared for sampling 18 to 20 tons of copper ore.

**PENBROKE AND EAST CRINNIS.**—J. Dale, G. T. Trevelyan, April 20: In the 182 cross-cut, south of Reid's shaft, the ground is favourable for exploring, and the men are making fair progress. In the 112 end, east of Smith's shaft, the lode will produce 1½ ton of ore per fm. of fair quality. In the 102 end, west of Smith's shaft, the lode will produce 1½ ton of ore per fm. In the 100 end, east of Smith's shaft, the lode is large and will produce from 2 to 3 tons of ore per fm.; in the slopes in the back of this level the lode will produce about 1½ ton of ore per fm. In the slopes in the back of the 90, east of Smith's shaft, the lode on an average will yield about 1 ton of ore per fm.; the ground at Smith's shaft still continues favourable for sinking. Ground driven during the week ending April 20: The 162 cross-cut south, 4½ ft. wide, ground good for mineral. The 112 end, east, 4½ ft. wide, looks well for improvement. In the 102 end, west, and 100 east the men are still engaged taking down the lode. Smith's shaft is sunk 5 ft.

**PENCOSE CONSOLS.**—H. B. Grose, April 16: Saturday last being our monthly meeting, the following tributes were received: The 50 end, west of Bennett's shaft by four men, at 21s. 9d. per fm.; the lode is at present small and not very promising to the point of the horse. We shall now drive on the south or main part of the lode, and I expect to meet with the ore lately discovered in the 45, in about 4 fms. driving. The 45 to drive east of cross-cut by two men, at 45s. per fm.; this driving will open good tribute ground, and will also communicate this level with the old 45, which will greatly facilitate the working of this piece of ground. We have also set a cross-cut in the 35 to drive south to cut the main part of the lode in that level also (which I expect to reach in about 5 fms. driving) to two men, at 55s. per fm. The 55 to drive east of the east shaft by two men, 6 fms. or the month, at 42s. 6d. per fm.; the lode is 1 ft. wide, with spots of jack, copper, and lead; promising for improvement in the future. We have seven pairs of tributes working at the different levels—viz., one pair at the 45 west, at 28s. per ton; one pair at the 45 east, at 18s. per ton for jack; three pairs in the back and bottom of the 6, at 28s. per ton; one at 25s. per ton; and one pair at the powder-house lode, at 28s. per ton. The lode throughout these pitches is just as last reported, and from their present appearance the men will get fair wages in their respective tributes. The masons have this day commenced to build the pit for the balance-bob, and I expect to have the same completed by the 17th inst. We have also some repairs to do at the engine, which we shall do at the same time, and make one stop do for that work also.

**PENDEEN CONSOLS.**—W. Eddy, April 15: At the shaft sinking below the 82 the lode is large, 3 ft. wide, composed of munda with copper and tin, more than the lode later than seen in the levels above. In the 82 north the lode is large but not very promising for some time past. In the 70 north the lode is producing more ore and of better quality than it has been for some fathoms past—about 3 ft. wide. In the winze sinking below the 70 the lode is large, with more ore than we ever had before, leaving good sinking ground in each end of the winze.

**PONTERWYD.**—J. Hughes, April 19: At the boundary level we have six men stoping, and it is expected the stuff they are cutting will produce about 20 or 22 cwt. of lead per fm. The tributes at the Bog are doing well. At the old Llywrog the water is not yet in fork, and we are at present waiting for another lift of pumps, to enable us to reach the bottom. The men employed in clearing the old shaft, opposite the captain's house, will, we trust, clear it out very soon.

**PRIDEAUX WOOD.**—T. Gill: In the 34 fm. level, east of Kendall's shaft, on Kendall's lode, the lode is about 18 in. wide, but at present poor; looking at the level above, there is every reason to expect an improvement in this level as we get further east. The 44 is now commenced driving east on the lode; the lode here is 3 ft. wide, and of very promising character. On Saturday last a new pitch was set in the back of the 54, where the lode is very good for tin; the tribute for this pitch is 5s. in 12. The other parts of the mine are much the same as for some time past. There are about 5 tons of tin on the mine ready for the market.

**PROVIDENCE.**—A. Anthony, April 21: The lode in the 75, east of Higgs's shaft, is 2 ft. wide, worth 50s. per fm. The bunch of tin stoping north, in back of the 75 east, is 4 ft. wide, worth 130s. per fm.; the slopes under this pitch are 3 ft. wide, worth 50s. per fm. The cross lode in the 75 east is 6 ft. wide, worth 70s. per fm. The lode stoping in the bottom of the 55 east is 1 ft. wide, worth 50s. per fm. The lode in the bottom of the 45, east of Comfort lode, on a limb of the carbons, is 2 ft. wide, worth 8s. per fm. The slopes in bottom of the old carbons are 2 ft. wide, worth 8s. per fm.

**QUEEN OF DART.**—P. Hawke, April 13: After a week of almost incessant rain, I beg to inform you that we have had to combat a great increase of water from the eastern portion of the mine set. The engine-wheel being to some extent water-logged,

also a branch being made in the Dart test, our underground operations have been almost entirely suspended for the last 24 hours. We are again working with good speed, but during the floods our lifts were overdone. We have not suffered so much, I have been informed, as our neighbours, some of them having had their mines full almost to surface. Nothing has been done on either point towards opening on the lode since my last report worthy of bringing under your notice. Such floods have not been known for years in this part, and we may not experience the like for years to come. However, I am glad to state that the engine withstood every obstacle, and is now working from 12 to 13 strokes per minute, in order to drain the mine. The water at present is at the 10. We hope to have drained to the 20 by to-morrow evening, when each point of operation will be resumed with vigour.

**P. Hawke,** April 21: Since the boundary shaft and the 20 fm. level east, have been communicated I have been enabled, through this advantage, to reduce the number of hands in the said shaft from eight to six. I have likewise reduced the number of hands in the 20 fm. east from four to two, consequently I am now in a position, by the aid of four boys whom I have employed, to resume the 30 east; likewise to work No. 1 slope in the back of the 30 fm. level.—Engine-shaft: The lode in the 30 east is about 10 in. wide, but poor at present; I expect a favourable change within a few fms. driving, judging from the character of the lode gone down in the level above; let to two men and two boys for one month, at 6s. 10s. per fathom. No. 1 slope, in the back of the 20, west of boundary shaft, continues to yield ½ ton of copper ore per fathom—let to two men and two boys at 4s. per fathom for one month. The lode in the 20 east, driving to the east of the boundary shaft, is 2 ft. wide, producing occasional stones of copper ore, with a very promising appearance. I shall not be surprised to see a good lode shown at this point even directly; the indications here are more than ordinary—let to one man and one boy, for one month, at 4s. 10s. per fathom. The lode in the boundary shaft presents the greatest promise. I would wish it to be understood that the said shaft is being carried on in sinking below the 20, as well as from the 10 to the 20 fm. level, 10½ ft. long on the course of the lode. The lode throughout half the length of the shaft, as here described, is 1½ ft. wide, composed principally of quartz, munda, and copper ore, the latter by far the most in quantity; it is a tolerably good lode, and is to all appearance, as we progress with the sinking, lengthening throughout the shaft. I contemplated much on the character of the strata east to boundary shaft, dip of the slides eastward, bearing and the Queen lode, contra-branch, &c., east in this direction; after which I indulged the most sanguine hopes of ultimate success on operations being carried out eastwards. Judging from the present appearance of the lode in the end in the 20 fm. level to the east of the boundary shaft, likewise the character of the lode in the bottom of the said shaft below the 20, I have every reason to strengthen my former opinion, by saying it is more than ever likely that we shall lay open a valuable discovery. I mentioned in my report, when we commenced to sink the shaft from the 10, that it was not likely we should meet with anything worth notice till we got some fathoms below the 20. We had completed the shaft about 2 fms. below this point when an important change took place—let to six men, 5 fms. certain, for 60s., subject to all cost they may incur. The underground prospects are cheering. The machinery underground and at surface is in complete working order.

**REDMOOR.**—T. Taylor, April 19: We are desling the lode in the 30 north, on the lead lode, and also desling the lode in the 40 west. The 70 winze, on Kelly Bay lode, is still improving; the lode in the bottom of the winze will yield 1½ tons of copper ore per fm. The 80 is without any important alteration since my last report.

**ROSEWARNE CONSOLS.**—J. Richards, April 17: Our engine-shaft is down 5 fms. under the 20; the lode is 2½ ft. wide, ore throughout; in consequence of so much water the black ore is all destroyed. The lode in the 20, driving west of engine-shaft, is from 2½ to 3 feet wide; for the last week we had a very good branch of ore in the end, to-day it is not quite so good, opening tribute ground. We have been driving by the side of the lode in the said level, east of the shaft, for the last week. The 10 end, east of the engine-shaft, is opening tribute ground. The lode in the adit end, driving east of the new cauter lode, is 3 to 4 feet wide, composed of peach, prlan, munda, and a little copper ore, in consequence of the heavy rain the tributes could not be sent out on the tributes. I have ordered four men to open a shaft further west on these branches, which is to-day cleared up to the back of the old men's adit; as soon as we have it cleared to the bottom we shall resume sinking under the old men's workings, where I expect to lay open some tribute ground. We have about 47 tons of copper ore dressed towards the next sampling.

**ROSEWALL HILL AND RANSOME UNITED.**—P. Roach, April 20: Since the 14th inst. we have cleared and secured 6 ft. of the engine-shaft, and caulked about 60 fms.; this was supposed not to be needed, but since the steam-whim has been working it is found necessary to be done. In the adit, at the old engine-shaft, we have cleared about 6 ft. at present it is very wide, and, of course, we cannot make the proficiency desired. About 2 or 3 fms. will get through the shaft, after which we anticipate getting on much faster in the lode. In the 70 end, the end has been taken up. There are but two men here, no more than there have been since we have been west of Penborth's shaft; but we shall shortly be in a position to put more men here, which will, of course, soon complete the work of the adit. All other things are favourable towards opening the mine.

**SORTRIDGE CONSOLS.**—R. Jackson, April 22: Hitchens's engine-shaft is progressing satisfactorily; the lode is 3 ft. wide, composed of spar, munda, capel, and spots of ore. In the 74, west of the engine-shaft, the lode is 2½ ft. wide, composed of spar, prlan, munda, and stones of ore; in the same level east the lode is 2 ft. wide, composed of spar, prlan, munda, and spots of ore. In the 62, east of the engine-shaft, we are carrying the north part of the lode, about 2 ft. wide, composed of spar, munda, capel, and good stones of ore. In the rise in the back of the 62, west of the engine-shaft, the lode is 2 ft. wide, composed of spar, prlan, munda, and stones of ore. In the slopes in back of the 50 east of Crossman's winze, the lode is worth 3 tons of ore per fm. In the 50, driving east on the south lode, the lode is 2 ft. wide, composed of spar, capel, munda, and good stones of ore. In the 50, west of the cross-course, no lode has yet been met with. In the 40, west of the cross-course, the lode is 3 ft. wide, composed of spar, munda, capel, and good stones of ore. There is no alteration to notice in any other part of the mine.

**SITHNEY WHEAL BULLER.**—Wm. Chappell, April 19: In the 55 the lode is composed of bent and prlan, thickly impregnated with tin; about 4 tons of tinstuff have been raised in the last week. Little has been done on the lode during the week, having had to clear and repair the shaft in readiness for future operations. In the course of next week it is intended to drive the eastern end, to prove the lode there. In the 70, west of cross-cut, the lode bears good stone of ore. In the 84 east the lode is now being worked on the lode. In the 70 end, the end has improved, producing good stones of tin, with an abundance of water still issuing from it.

**SOUTH REDFORD CONSOLS.**—J. Phillips, April 20: There has been no change taken place to notice since my last report.

**SOUTH BULLER AND WEST PENRITHAL.**—G. Reynolds, April 20: We have about 25 fms. of the cut tin lode; this lode has proved productive to the east, and, being a parallel lode, I consider that we have a good speculation.

**SOUTH CARN BREA.**—T. Glanville, April 21: There is no alteration to report on.

**SOUTH CRENVEN.**—J. Delbridge, E. Chegwain, April 17: In the 94 west the lode is 1½ ft. wide, worth 1 ton per fm. In the 84 rise the lode is large; tribute ground. In the 54 west the lode is 20 in. wide, yielding good stones of ore. In the 74 east the lode is 16 ft. wide, worth 1½ ton per fathom. In the 84 east the lode is 2 ft. wide, producing 1½ ton per fm. The slopes in the 84 are worth 1½ ton per fathom. Our tribute pitches are without change to notice since last week.

**SOUTH DOLCOATH AND CARNARTHEN CONSOLS.**—W. Roberts, April 20: The rise in the back of the 70 is communicated with the 50 fm. level. Other parts are without alteration.

**SOUTH LADY BERTHA.**—W. Goss, April 22: The men have resumed driving and sinking again below the adit level, where we are breaking some splendid work for copper ore; had we no other lode this itself would be a first-class speculation. The weather is now all that can be desired for surface labour, and every exertion will now be made to get the water-wheel erected as soon as possible. I have been assured within the last few days, by some of the men who last worked in the mine, that it is only to fork the water, and we have a paying mine at once. This is on a different lode from that which we are now raising ore from. The axle for the wheel and some of the castings will be on the mine in a few days.

**SOUTH WHEAL TOLGUS.**—April 17: The lode in the 100, west from Mitchell's engine-shaft, is 15 in. wide, yielding 2 tons of ore per fm. The four slopes in the back of the 100, the slopes in the back of the 100, are of ore per fm. The lode in the 90, west of Mitchell's shaft, is small and unproductive. The lode in the 90, west from Mitchell's shaft, driving east on the branch, has not been taken down in the past week. The lode in the rise in the back of the 78, west of Mitchell's shaft, is 15 in. wide, yielding 1½ ton of ore per fathom. The lode in the 78, west from Mitchell's shaft, driving east of the cross-cut on the north branch, is small and unproductive. There is no alteration in the ground in the 78 cross-cut, south from Mitchell's shaft, since last reported.—South Lode: The lode in the 100, east of Mitchell's shaft, is 15 in. wide, and unproductive. The lode in the 90, east of Mitchell's shaft, is not so large as when last reported, nor is the lode, yielding 1½ ton of ore per fm. The lode in the 90, sinking in the bottom of the 90, east of Mitchell's shaft, is larger and more kindly than when last reported, now 20 in. wide, producing good stones of ore. The lode in the slope in the back of the 90, east of Mitchell's shaft, has not been taken down since last reported. We have not been able to do anything in our bottom end, nor in sinking Mitchell's shaft during the past week, in consequence of the great increase of water from the late fall of rain we have had. Our engine has been working frequently in the past week over nine strokes per minute, which fast working has occasioned some slight accidents to our box-rolls and balance-bob; however, the water appears to be abating, and we hope to get it again under control, and to be able to sink again next week. We have held a winze from the 90 to the 100, west of Mitchell's, on Youren's lode, which has given us good ventilation in this part of the mine.

**ST. AUSTELL CONSOLS.**—R. H. Williams, April 17: The 45 cross-cut is a little easier for driving. The 35 cross-cut, Barker's lode in the 35, is coming out well, and from appearance is a regular, well-defined lode; if so, this will be a very important thing for this mine. I have just commenced a level east on this lode in the 20, and the ground is of a most congenial character, and the wall of the lode very regular, and underlying about 1 foot in a fathom; another important feature in the lode is its bearing nearly east and west (magnetic). Our great slope lode runs from 30 to 45° south of east. In the 15 we have just commenced to open on the same lode (Barker's) going west, and it is looking very encouraging, and I believe will result well; this lode is standing throughout the mine, and, from present appearance, I believe it will be a very productive one; about 30 fms. west of where we have a fair quality lode in the end driving on its course. This lode in the back of these levels, eight in number, are producing as follows: No. 1, 30 cwt.; No. 2, 10 cwt.; No. 3, 12 cwt.; No. 4, 5 cwt.; No. 5, 7 cwt.; No. 6, 9 cwt.; No. 7, 13 cwt.; No. 8, 5 cwt.; No. 9, 8 cwt. of lead per fm. The accident referred to in the first part of this report having for some days prevented working in the 215, I fear we shall not be able to sample on the regular day; but no efforts shall be spared to sample as soon after as possible.

**TAVY CONSOLS.**—R. Williams, April 21: The prospects of this mine are not altered materially since my last report. Another pitch has been let in the back of the 36 west, to two men; and we hope, from our present tribute and tutwork, to be able to return more ore in future than for the last month.

**TREWEATHA.**—T. Richards, W. Roe, April 21: The engine-shaft is down 16 fms. below the 70 fm. level. The 70 fm. level north is without change. The 50 north is at present poor. The slopes are yielding much as usual. We sampled on Saturday last a parcel of crop ore, computed 16 tons, to be sold on Monday, the 26th inst.

**UNITED MINES (Tavistock).**—J. M. Champion, April 21: The sinking of the engine-shaft is progressing favourably under the 30 fm. level. The men who were engaged driving on the course of the lode, at the 30 fm. level, are at present putting in a stall; there is no reason to suppose that the lode is not communicating on the lode since my last. In the course of a day or two the stall will be completed, and then I would recommend cross-cutting the south part of the lode, if I find we are not through it. There is no alteration to notice in any of the pitches for the past week. The engine is working well, and consuming 14 cwt. of coals in twenty-four hours.

**VALE OF TOWY.**—S. Harper, T. Harvey, April 20: In sinking Clay's engine-shaft below the 60, the lode is 2½ ft. wide, at times producing good lumps of lead. The lode in the 60, north of this shaft, is 4½ ft. wide, producing saving work for lead. In the 60, south of this shaft, the lode is 4 feet wide, poor. No. 2 winze sinking in the bottom of the 60, north of this shaft, the lode is 2½ ft. wide, producing 5 cwt. of lead per fm. The lode in No. 1 slope, back of this level north, is 2½ ft. wide, producing 14 cwt. of ore per fm. The lode in No. 2 slope, in back of this level north, is 4 ft. wide, producing 8 cwt. of lead per fm. The lode in Bonville's shaft, sinking below the 50, is 4 ft. wide, producing 30 cwt. of lead for the whole length of the shaft. The lode in No. 1 slope, in back of 60, south of this shaft, is 4 feet wide, producing 1 ton of lead per fm. The lode in No. 1 slope, north of this shaft, is 4 ft. wide, producing 30 cwt. of lead per fm. The lode in the 60, north of this shaft, is 2½ ft. wide, worth 1 ton of lead per fm. In the 40, north of this shaft, the lode has met with a horse of capel, which has disordered it at present; the western part is about 1½ ft. wide, producing about 5 cwt. of lead per fm. The eastern part is unproductive. The lode in 2½ ft. winze, in bottom of the 40, is 3 ft. wide, producing about 10 cwt. of lead to the fm. At the 30 we have not met with any more lode. The lode in the 50, south of Field's shaft, is 5 ft. wide, although producing fine lumps of lead, it is not so productive as in the past week, but from present appearance we may reasonably expect a change again in this end soon. The lode in the 40, south of this shaft, is 2 ft. wide, producing 6 cwt. of lead per fm. The lode in the 30, south of this shaft, is 2½ ft. wide, producing 15 cwt. of lead per fm., and promising for a further improvement. All other parts of the mine continue much the same.

**VIRTUOUS LADY AND WHEAL REDFORD.**—W. Metherell, April 22: The water is again in fork at the 24, and the men have resumed working. Colville's pitch is a little improved; they are now breaking some good work. The pulley stands, &c., are up, and we shall soon commence drawing their ore. We have cleared the 20, where they are stoping the backs for tin. I have put the men to shoot down the lode in the side of the level, where the former workings drove on the south part and left the lode standing. I hope we shall cut a good lode of tin. Nothing else particular to report on.

**WEST ALFRED CONSOLS.**—S. Lean, R. Stephens, April 20: The lode in the 95 fm. level, east of flat-rod shaft, is 5 ft. wide, composed of spar, munda, and ore, and looks very promising. The lode in the 85 east has not been taken down since our last report, which was then 2½ ft. wide, and containing more ore than for some fathoms driving. The lode in the 55 winze, sinking below this level, is large and promising, worth 107 per fm. The lode in the 75 west is 4 ft. wide, and no north wall, composed of spar and stones of copper ore. The lode in the 65 west is large and promising, but not so efficient ore at present to value. The lode in the 55 west is 18 in. wide, and good stones of ore in the bottom of the end. We drove last month in the 95 cross-cut north 5 fms. 3 ft.; we set on Saturday last to drive 6 fms. at 22. 10s. per fm. The ground is not only very favourable but highly mineralised, and letting out much water, which circumstance we regard favourably. The ground in the 45 cross-cut north is not quite so favourable, now driving at 6s. per fm. We have done nothing in our new shaft on Jaquemot's lode in the past week, in consequence of water occasioned by floods of rain which recently fell; we hope now, the weather being fine, we shall soon resume sinking it; the lode is equally as promising as when last reported on.

**R. Stevens,** April 21: I think that the change that has taken place in the 65 of late is caused by a cross-branch going north and south; this branch will produce lead ore. I remember seeing one or two such things in the 55.

**WEST BASSET.**—W. Roberts, April 19: In the 94 cross-cut north the lode has not yet been cut through; it can be seen 1½ foot wide, good yellow ore. The 84, west from Nega's cross-cut, produces 5 tons of ore per fm.; the same level east 2 tons. In the 75, east of Youren's cross-cut, the lode is 2 feet wide, producing 2½ tons of ore per fm. The 75, west of Percy's shaft, produces 1 ton; the 65 west, 3 tons; and the 52 west, 1 ton of ore per fm. The slopes and pitches are turning out well.

**WEST CRINNIS AND WHEAL REGENT UNITED.**—J. Webb, April 22: We have now holed the 40 cross-cut to Regent engine-shaft, and let down the water. We shall now drive the pumps below that level, and shall soon be in a good state for draining the mine. The flat rods are nearly completed, and the Regent engine-shaft divided and caulked from surface to the 40 fm. level. We are getting just the usual quantity of ore from the 40, but we do not calculate to increase the returns much until the mine is drained and cleared out below that level. We were obliged to put the winding and crushing-engine under repair, which has prevented the winding and crushing for a fortnight or more; the machine is greatly improved, and will now carry out the works to a great extent. There is not much alteration in the tribute department.

**WEST GRENVILLE.**—S. Peryn, April 19: The lode in the western end is split by a horse of granite; the south part, from 8 in. to 1 ft. wide, is composed of a beautiful spar, intermixed with grey, yellow, and black copper ore; the north part is 1 ft. wide, yielding occasional stones of copper ore; this looks well for the ground west of the cross-course. I have no doubt these branches will soon form a junction, and then I expect something better. In the rise above the back of the adit level we have gone through a very good lode of ore; the present back is not quite so good.

**WEST PAR CONSOLS.**—J. Webb, April 22: The ground in the 65, driving east, is rather hard for making rapid progress; we are putting all force possible on this point. The 45 east is producing a little copper and good stones of tin. The late heavy flood has thrown water in Dawke's shaft, sinking below surface, which has prevented the sinking for the last fortnight. We shall get this shaft through to the 45 as quickly as possible; I calculate it will require 5 or 6 weeks to hole to the rise 10 fathoms above the 45; when that is done we shall be getting more tin and copper.

**WEST SHARP TOR.**—W. Richards, April 19: The lode taken down in the 110 west in the past week is just the same as for some weeks past, being composed of capel, quartz, peach, and good stones of rich ore occasionally. The ground north of the lode is granite, and favourable for driving. The small part of the lode carried in Morris's shaft yields some rich ore now and then. The ground north of the lode is elvan, and just the same for the rise. The granite is continuing in the back of the cross-cut, in the 110 east, and the end is still very wet. I hope to be able to say that we are quite through the lode in my next. There has been nothing done in the 70 east in the past week, the men having been engaged securing the old shaft. The 70 fm. level has been set to drive east of Morris's engine-shaft, by six men; stented the month, at 14s. per fathom. The cross-cut to drive south, in the 110 fm. level, east of Morris's engine-shaft, by six men; stented 3 ft., or cut through the lode, at 26s. per fathom. The 110 fm. level to drive west of Morris's engine-shaft, by six men; stented the month, at 8s. per fathom.

**WEST WHEAL JANE.**—J. Tonkin, J. Trengoon, April 17: The lode in and over the 36 fm. level, east of the engine, is still looking well; it is a little improved in the last week, it is now worth 107 per fathom for copper, munda, and tin. The ore part of the mine remains just as they were at our last general report. The ground in the engine-shaft is easier for sinking. We have given 88s. per fathom to-day, instead of 46s., as last month.

**WEST WHEAL TREVELYAN.**—J. D. Osborn, B. Gundry, April 17: Cater's shaft is sunk 18 fms. from surface, ground still favourable for sinking. The cross-cut driving towards Cater's shaft, in adit level, driven 29 fms. We hope to hole the shaft this week.

**WHEAL ADDEMS.**—R. Moore, April 21: The south part of the mine is looking just the same as was last stated. In opening new ground in the 18, north of the shaft, by driving a level and sinking a winze, this piece of ground looks very valuable for lead and blende, spotted with yellow copper ore. The winze to the north of the old engine-shaft will be a good wages place for four men, at 9s. per ton for blende, and 3s. per ton for lead. The 28 is being secured, and the shaft downwards is also finished, but the water has risen, owing to the heavy floods, up in that level so much as to prevent us doing anything in the way of laying open ground below as it did previously. I have received no answer to my repeated applications respecting the purchase of a winze, as I want it particularly to get at a deeper level at the south engine-shaft.

**WHEAL AGAR.**—W. Roberts, April 20: The following bargains were reset on Friday last: The engine-shaft



in the course of a day or two. In the 34 ft. level we have resumed driving west on the same part of the lode as we were before cross-cutting; the end presents no change to notice. There is no change in the 22 end.

**WHEAL EMMA EXTENSION.**—W. Goldworthy, April 22: In driving south we have cut the lode, where we expected better ground, but in this we were disappointed, the lode being small, and the ground to the south being of a mixed character, quartz, kila, and mudstone; we shall continue driving a little further in this direction, in order to ascertain the full side of the lode, which is very large at this point.

**WHEAL FRANK MILLS.**—John P. Nicholls, April 20: There is no change in the ground in the 84 cross-cut west, still being an elvan; we do not think there is a chance of finding any more lode in this direction, and have consequently suspended its driving, and removed the men to drive north on the western lode in the same level. We expect to effect a communication with the rise in the back of the 84, on the east lode, to the winze under the 72 in a day or two. The 84 stop is still yielding about 1½ ton of lead ore per ft. In the 72 north, since communicating the winze from the 60, we have cross-cut east, and not finding any lode of much value we resumed our north end on the western lode, which I am happy to say has much improved; the lode at present is about 15 in. wide, in very soft ground, and will yield about 1½ ton of lead ore per fathom, with every chance of further improvement. We have resumed the driving of the level above the cross-cut west, just behind this end, we still find the ground highly mineralised, with every cleavage containing lead, and occasionally producing even good stones of lead, although we have not cut any lode. We are most decidedly of opinion that there is a lode before us, which we anticipate from indications to be a good one. The 72 south, on the east lode, is not so good as it has been, worth at present about 1½ ton of lead per fathom. No other alteration in the tutwork department, and the tribute is looking much as usual.

**WHEAL GRENVILLE.**—G. R. Odgers, April 17: The men are making very good progress in sinking the engine-shaft below the 66; the lode is full 20 in. wide, composed of gossan, friable quartz, &c., with occasional good stones of ore—in fact, a very promising looking lode indeed. In the 66, east of the shaft, the men have been driving on the north part, which is 12 in. wide, a very congenial spar, and alive for ore; they are despatching the south part, which will be sunk down next week, when I will write you more particulars; it is now full 20 in. wide, with a good stone of ore for 2 feet above the bottom of the level, which I have before advised you, is black and grey ore, mixed with the green carbonate of copper, embedded in a good quartz. We have not yet cut any lode or branch in the cross-cut north in the 54, east of the shaft.

**WHEAL HARRIETT.**—S. Williams, April 17: During the past week there has been no alteration to notice in the underground department. If the weather continues fine the masons will get the winze-engine house up next week, when the engineers will commence to erect the engine with all speed.

**WHEAL MARY ANN.**—P. Clymo, H. Hodge, R. Knapp, April 22: Pollard's shaft is sunk 6 fms. under the 150 ft. level; the cross-cut at this level is extended 9½ fms. towards the lode. The lode in the 140 north is 2 ft. wide, and worth 11½ per ft. In the same level south it is 2½ ft. wide, and worth 12½ per ft. In the 130 north it is 3 ft. wide, and worth 9½ per ft. In the 120 north it is 3 ft. wide, and worth 3½ per ft. In the 120 south it is 2 ft. wide, and worth 14½ per ft. In the 110 north it is 2½ ft. wide, and worth 10½ per ft. In the 100 north it is 3 ft. wide, and worth 16½ per ft. Clymo's shaftmen are still engaged in fixing the new pitwork. The stopes and pitches are producing much as usual. We will sink this day a parcel of lead ore, computed, 90 tons.

**WHEAL MARY EMMA.**—W. Doble, April 21: In sinking the winze below the adit the men have come down on a bed of mudstone, with good stones of copper ore and gossan, of a beautiful character. The latter end of the past week they met with what appears to be a loose lode, from which was broken some fine stones of tin, specimens of which, with the copper, I have sent on to your address. The lode throughout is covered with sulphate of copper. The men have been shooting down the end of the winze the last few days, to lengthen the same, which will take them a few days longer to complete. If anything new transpires in sinking I will advise you.

**WHEAL POLLARD.**—J. Nance, April 17: It will take our shaftmen about ten days longer to complete the cutting of the clasp-pit, and in sinking the shaft 9 feet, as per contract. There is no alteration in the south cross-cut end to notice since my last.

**WHEAL TREVILLY.**—D. Lankbury, April 21: There is no change of importance taken place in either of the levels during the past week. In the 60 ft. level, driving north, no water has been seen since we commenced driving, before the last few days, when the ground has become very wet; we think a lode is not far distant. On Saturday last we sold the little parcel of tin from this mine, but regret to inform you that when put into the burning-house a great part of what appeared to be tin (and which deceived not only myself and the other agents of the mine, but the dresser) proved to be iron; and the parcel instead of being a ton is only 10 cwt. 2 qrs. 4 lbs., at 53½. 7s. 6d. per ton.

**WHEAL TRELAWNY.**—W. Bryant, W. Jenkin, April 22: Smith's engine-shaft is sunk 7 fms. 4 feet below the 142. The lode in the 142, north of Smith's shaft, is 2 feet wide, and worth 14½ per ft.; in the same level south it is 3 feet wide, worth 10½ per ft. In the 132 north it is 3 ft. wide, worth 12½ per ft. In the same level south it is 2 ft. wide, worth 8½ per ft. Chippendale's shaft is sunk 5 fms. 3 ft. below the 120, the lode in which is 2 ft. wide, and worth 8½ per ft. In the 120, north of Chippendale's shaft, is 2 ft. wide, worth 12½ per ft. South Mine: The lode in the 142, south of Trelawny's shaft, is 2 feet wide, worth 7½ per ft.; in the same level north we are driving in kila by the side of the lode. In the 130 south it is 3 ft. wide, worth 11½ per ft. In the 107 north it is 2 ft. wide, worth 5½ per ft. The stopes and pitches are producing much as usual. We sold, on the 17th instant, a parcel of lead ore, computed 80 tons, to Messrs. Sims, Williams, and Co., at 23½. 17s. 6d. per ton.

**WHEAL TREVILLY.**—J. D. Osborn, B. Gundry, April 17: Watson's engine-shaft is sunk 9 fathoms 3 feet below the 50; we hope to complete the sump this month. The cross-cut driving south in the 50 is driven 19 fms. 3 feet, the ground of the same nature as last reported. In the 40, driving east on Richard's tin lode, there has been no lode taken down this week.

**WHEAL UNION.**—T. Glanville, April 21: There is no alteration to report this week.

**WHEAL WREY CONSOLS.**—P. Clymo, W. Hancock, R. Roskilly, April 22: The engine-shaft is sunk 11 fms. 1 ft. under the 64; the lode in the 64 north is 4 ft. wide, producing 8 cwt. of lead per ft. In the 54 north it is 4 ft. wide, producing 5 cwt. of lead per ft. In the same level south it is 2½ ft. wide, producing 7 cwt. of lead per ft. In the 44 north it is 2 ft. wide, producing 3 cwt. of lead per ft.; in the same level south it is 3 ft. wide, producing 6 cwt. of lead per ft. The stopes and pitches are not quite so productive as heretofore. We sold on the 8th inst. a parcel of lead ore, computed 50 tons, to Messrs. Sims, Williams, and Co., and Messrs. J. Bibby, Sons, and Co., at 18½. 18s. per ton.

**WILLOW BANK.**—J. Sanders, April 19: Our pay and setting-day was on Saturday, when the following bargains were set:—The 30 ft. level to drive east, by six men, at 8½ per fathom; the lode at present is from 4 to 5 ft. wide, spotted with lead ore throughout, much the same as for the last 7 or 8 fms., yielding about 3 cwt. per fathom. The 30 ft. level to drive west, by six men, at 8½. 10s. per fathom; the lode at present is 4 ft. wide, of a very good character, with spots of copper and lead ore, but not sufficient to value. I expect to get the pit completed, penthouse fixed, and everything ready to commence the shaft below the 30 in about a fortnight.

**OUR TRADE WITH AUSTRALIA.**—The Returns from the Board of Trade, for the three months ending March 31, 1858, show a decrease of export from the United Kingdom to our Australian possessions. We find the declared value of 23 items gives a collective amount of 1,470,635l.; and as the total for the same period of last year was 1,663,084l., there is a decrease of 194,449l. on the enumerated articles. The falling off was chiefly in leather goods, beer and ale, and British spirits. The aggregate value of British exports to our Australian dependencies, for the first quarter of the present year, amounts to 2,205,965l. Enumerated articles, 1,470,635l.; and unenumerated, 835,350l.

**NORTH WALES MINERAL TRADE.**—There has not been any improvement in the coal and iron trade of North Wales. In all the works, except Brynmawr and Westminister, the trade is very dull, but at the above works good orders have been received. In consequence of some mismanagement, the Lancashire coal is rapidly displacing the Welsh coal in Chester, and there has been a marked decrease in the coal receipts of the Shrewsbury and Chester line. An experiment, which has been made at the Vron Colliery, of making coke from small slack, by Mr. Mackworth's patent, has proved eminently successful, and is calculated to be of much importance in turning the waste coal to a useful purpose.

**SALE OF MINING SHARES BY AUCTION.**—Mr. T. P. Thomas submitted for sale by auction, at Garmarby, on Thursday, several dividend and other mining shares. The first lot was West Caradon, the reserve price being 110l.; there was no bidder. Two shares in Wheal Reeth Tin met a similar fate; the reserved price was not mentioned. Fifty shares in Coed Mawr Pool Lead Mine (limited), notwithstanding a very elaborate description by the worthy "knight of the hammer," were passed, and 21 lots, varying from ten to fifty shares each, in Bedford Consols Copper Mine, and 14 lots of ten to fifty shares each in Clara Silver-Lead Mine, went through the ceremony of being knocked down at nominal prices. In fact, we believe there was not one lot actually sold.

**SALE OF SHARES BY AUCTION.**—Mr. Plews, of the firm of Plews and Walls, submitted, yesterday, for sale, by auction, at the Mart, 50 preference shares of 25l. each in the Company of Copper Miners in England, being a portion of the estate under the bankruptcy of Sir John Dean Paul. The holder of the shares are entitled each half-year to a preferential dividend of 7½ per cent. per annum. They were put up in five lots, of 10 shares each. The first three lots fetched 26l. 10s. per share; lot four, 26l. per share; and the last lot, after a spirited competition, realised 27l.

**REYNOLDS v. BUCKLEY AND OTHERS.**—The question involved in this case is one of boundary between two Cornish mines, called South Wheal Frances and West Basset—the plaintiff representing the former, and the defendant the latter mine. On Tuesday last Mr. Lush, Q.C., pursuant to leave expressly reserved, applied for and obtained from the full Court of Queen's Bench a rule to show cause why the verdict obtained by the plaintiff at the trial at Assizes should not be reversed and entered for the defendant, or West Basset Mine, instead of for the plaintiff, or South Wheal Frances Mine.

**WHITBY.**—The importance of this neighbourhood is becoming quite apparent to speculators in the iron trade, who have at all made themselves acquainted with the district; indeed, there is no one with any practical knowledge of geology and mining who can take a survey, and observe the immense quantity of rich iron ore with which the hills are filled, and not be impressed with the idea that the district holds out great advantages and large remunerations for investments. This is the conclusion to which many who have surveyed it come to, and have already taken extensive royalties, and commenced erecting blast-furnaces. The whole of Squire Elwes' royalty, extending from Beckhole to Grosmont, a distance of about three miles, and contiguous to the North-Eastern Railway, has been leased. At Beckhole, nine miles from Whitby, two furnaces of large dimensions are erecting, and in a short time they will be completed. A little lower down the line of the iron-ore, and has commenced on Squire Elwes' property, and one of them, the Julian Park Iron Company, are carrying out arrangements to erect furnaces without delay. These three companies at present are only working the Grogg band of ironstone, which immediately overlies the alum rock. The Pecten and Arvicula bands of ironstone can be easily come at by a shaft, which will not require to be deeper than from 150 to 200 feet, and no doubt will be sunk when these works get into full operation. There are several other royalties leased nearer Whitby, contiguous to the railway, and some of the companies are arranging to erect furnaces. From Grosmont to Sleight's Bridge the Dagger band of ironstone, as well as the Pecten and the Arvicula, crop out to the day on each side of the Vale of Eak, and as the railway runs down the centre of the valley, it affords excellent sites for blast-furnaces, as the stone would be on the spot, and other materials could be conveyed to them with great facility. A good supply of the colliery lime, which is found to answer very well, can be got at Pickering, a distance of only sixteen miles; and when the North Yorkshire and Cleveland Line is completed, which is intended to be done without further delay, it will connect the coal district in the North with this locality; coal and coke will be conveyed here much cheaper than at present, and with other advantages that this district offers, iron will be manufactured here as cheap, and, perhaps, cheaper than it can be in any other district in England.

## MINING MAXIMS.—No. I.

"A LEARY\* BELLY MAKES A SAUCY TONGUE."

Is one of the truths so unpalatable to the parties who are the cause, as well as to those who are the passive utterers of the maxim. It is an easy matter to judge on the first visit to a mine whether the men are regularly and sufficiently paid. In the one case a smart activity and readiness to answer questions, and an obedience to the worth or dread of the threat of the captain at once indicates good pay and good management; but where a louting gait, with hands in the pockets; the miners lolling against the smiths' shop doors, with pipes in their mouths; when addressed by the captain, a short, cutting response bespeaks "post pay, if any, on pay day;" they are as certain indications as that the presence of lightning will cause thunder, or that the advent of an adventurer will cause grumbling, starving men and pining wives and children to complain.

On being remonstrated with by a visitor for their heedless appearance, and evident unwillingness to work, the answer invariably is, "What to — is the use of our working when we get no pay. Kappen, poor fellow, as no better off than we poor fellows; he can't help it we know, but 'tis no use to tell the shopkeepers so; they won't trust us but a month, and then what is us to do? We don't want to go to court about it, but the shop-people do put us there too; so if we are not paid we can't work, and you do know our work is hard, and requires good meat, and plenty of it, which we seldom gets. We are now two months behind, and from what we can see there's no pay for this. I only wish to God I had the money, I'd soon be off to Australia."

Underground the scene is the same, only more gloomy. This state of things is a grievous error, and should by all means be prevented. No wages on pay-day is to a mine what a returned bill is to a merchant, or "no effects" is to a gent keeping a bank account, on the presentation of his cheque in part payment of his tailor's bill; all confidence is lost. The exposure is not half so bad as the after consequences. The poor men go home to a dismal hearth; discontent reigns paramount; their poor wives wreak their disappointments on their innocent offspring, and the old couplet, by a slight alteration, may be faithfully realised:—

The very kittens on the hearth, The very devil's in the house,  
They dare not skip and play; If I don't bring home my pay.

There can be no doubt of the social evils arising from these causes being far more extensive and ramified than is usually considered. Little does the angry though rich shareholder suppose that his not sending his cheque for a few days after its becoming due may lead one of these hard-working men to a prison, for trapping a hare or rabbit, stealing a few turnips, or compelling him to plunge himself into inextricable debt, for which accommodation he pays, or rather is charged, double price, in the latter case causing domestic affliction incalculable; for when a man recovers good employment his wages are so scanty that he cannot recover his status, being ground down by gross overcharges, and the cursed laws of this country, that if a man once becomes poor he must for ever remain so, by the pecuniations of his numerous myrmidons. In the former by compelling a man to thief, merely to satisfy the calls of his famished children for nourishment, to quiet the reflections of his angry, half-distracted, wretched wife, or to renovate his system, fatigued and broken by the most severe and trying as well as dangerous labour known to man, entailing misery to them all, expense to his country (for to prison he must go), and a disgrace indelible to those who were the cause. Think not, say not, there is the workhouse, which will give a little relief at such a time. If you think so, dispel the vision; a rough rebuff and insult would be the reply to the starving man, woman, and children. Go to the law for your redress; and whilst this tardy process is being carried out to gain their rights, their necessities prevail over their better judgment, and they are for ever lost. Think not we state what is untrue; but oh! tardy adventurers, pray remember our Mining Maxim, and rest assured it is true, sadly too true, that "A leary stomach makes a saucy tongue."

GEORGE HENWOOD.

## DRAINAGE OF MINES—IMPROVED PUMPS.

While nearly every other branch of practical mining has, if we may judge from the number of inventions patented, received its fair share of attention, the improvement of pumps appears to have been comparatively neglected; a patent has, however, just been completed by Mr. James Ward, of Liverpool, from which great results are expected. His improvements are based, as is the case with most hydraulic machines, upon the law of atmospheric pressure—that by producing a vacuum in the upward stroke the fluid will rise to an equivalent height, and by producing a vacuum in the downward stroke the power of the vacuum finds an equivalent in the weight of the rods, gearing, and other causes of resistance. This principle being multiplied by continuous connection—placing the apparatus one below another—will be of the greatest importance in raising water from mines, as the power required for raising a given quantity of water through a given space is greatly diminished compared with that absorbed on the present plan.

A series of cylinders are fixed about 26 ft. below each other, the top one being applied in such a position that its base may be sufficiently elevated to ensure a convenient fall for carrying away the water as it is raised, and the lower cylinders fixed below each other down to the bottom of the mine; these cylinders are connected each to its respective reservoir, and with descending tubes connected to valve-boxes placed immediately below the cylinders; the pipes from each descend and rest in the reservoir of the one next below and so on. The bottoms of the cylinders are fitted with stuffing-boxes, through which a piston-rod passes to the piston, and the top of the cylinder being closed it is evident that the atmospheric pressure will prevent its voluntary descent. Power must, of course, be applied, but it will be materially assisted by the weight of the piston-rod and connecting or side rods (all the pistons that may be necessary to be used being geared together), so that when the pistons are to the bottom of their respective cylinders the space above them will be in *vacuo*, which vacuum is ready to contribute its equivalent power for the upward stroke, and as the piston rises the water follows the piston in its upward course; on rising to the height of the stroke the valves below the several cylinders close, while a side valve opens, allowing the water to flow out from the respective cylinders to which they are connected. The water is raised from reservoir to reservoir from the bottom of the mine to the surface, each reservoir holding a little more than the internal capacity of each cylinder; thus by working the piston in *vacuo*, and lifting the water at each stroke below its equivalent in atmospheric pressure, he is enabled to apply the difference to the diminution of power necessary in pumping water in the ordinary way. The mode of applying the power for working these pumps may be varied according to circumstances, and may be effected with a balance-beam and a crank, so as to convert the up and down motion into a rotary one, or any other convenient action.

The reservoir may be made of sheet-iron, riveted together in the same manner as a boiler, or may be cast or made of wood if preferable. From the bottom of this reservoir rises a cylinder which has a valve near the bottom of the side opening outwards into the reservoir; this cylinder is formed with a flange round the bottom, to admit of its connection with a second or kind of short false cylinder below the bottom of the reservoir; this latter is also formed with a flange for uniting with that of the principal cylinder. The lower part of this false cylinder has a cover with a stuffing-box, through which the piston-rod works, the piston being attached to the top of it and working between the top of the principal cylinder and the top of the valve in the side thereof. On each side of the lower or false cylinder there are attached angle pipes, with suitable valve-boxes therein; these pipes descend and rest in the reservoir below, where pipes having holes at their bottom ends to allow the water to flow freely in. Sockets run through the reservoir on each side of the cylinder for the side rods to work in; these side rods extend to a convenient height above the top reservoir and down to as much below the lower one as may be necessary to connect them with the cross bar of the lower piston-rod. Guide-rods are bolted securely through the flanges of the cover of the false cylinder, and connected at their lower ends to a cross or stay piece, the guide-rods being for steadying and guiding the piston-rods.

This apparatus may be considered as occupying its place at the top of the mine, as many more as may have been required having been arranged with their respective reservoirs, side-rods, &c., down to the bottom of the mine; the cross pieces of the piston-rods having been secured to the side-rods in their respective positions the whole arrangement is ready to commence pumping. Suitable power for obtaining the upward and downward motion being applied, the pistons being at the bottom of their respective cylinders, the cross-bars down to the end of the guide-rods; to effect this, the whole power of the motive agent employed will, as it is necessary in order to bring the piston to the bottom of the cylinder to produce a vacuum above it, be exerted to its greatest requirement; notwithstanding, it will be greatly assisted by the weight of the side-rods and other moveable parts, because to force down the several pistons requires a force equal to the area of each cylinder, first multiplied by the number of cylinders employed, and further by the pressure of the atmosphere, taken at 14 lb. on the square inch. The chief feature in the invention is the production of a vacuum above the pistons in the downward stroke, thereby turning to account the weight of the moveable parts, and the power over-taxed in the upward stroke.

It will naturally occur to practical minds that there would be great difficulty in making the pistons work with sufficient accuracy to prevent some little water against such a pressure escaping upward into the portion of the pistons in which the vacuum is produced, and as this escape does occur in practice, the inventor provides against it by constructing his cylinders with moveable caps, so that a valve may be placed in a seat at the top of the cylinder; as the piston rises, the water, if any, having escaped above the piston, will be forced through the valve, and descend to the reservoir through a small pipe above it. The several pistons being elevated by being connected by means of the cross-bars to the side-rods, the water will follow the pistons by rising through the angle pipes, and is prevented from returning by the closing of the valves therein. Immediately these valves close the valves at the bottom of the cylinders open, and allow the water to flow out into their respective reservoirs. The mode of supporting the reservoirs, &c., in the shaft is very properly left to the judgment of the engineer or captain putting down the pumps, as circumstances would have material influence; he remarks, however, that the reservoirs might form leading or resting stages, ladders passing from one to the other, so as to make them conduce to a safer and better mode of descending and ascending mine shafts, an improvement which would also be of importance in working Cornish mines. The invention, with trifling modifications, described in the specification, is applicable to ships' pumps, and could, no doubt, be applied with equal success wherever pumps are used.

\* Leary, means hungry.

## The Mining Market; Prices of Metals, Ores, &amp;c.

METAL MARKET—LONDON, APRIL 21, 1858.

COPPER.			BRASS.		
	£ s. d.			£ s. d.	
Copper wire . . . . .	1 lb. 0 1 3½-1 4		Sheets . . . . .	114-115	Per Ton.
ditto tubes . . . . .	0 1 2-1 3		Wire . . . . .	114-115	Per Ton.
Sheeting & bolts . . . .	0 1 1-1 2		Tubes . . . . .	14-15	Per Ton.
Bottoms . . . . .	0 1 1-1 2				
Old (Exchange) . . . .	0 0 11-1 2				
Rest selected . . . . .	120 0 0-				
Tough cake . . . . .	117 0 0-				
Tile . . . . .	117 0 0-				
South American . . . .	108 0 0-110 0 0				
IRON.			FOREIGN STEEL.		
	£ s. d.			£ s. d.	
Bars, Welsh, in London .	7 5 0-7 10 0		Swedish, in bags (rolled)	20 0 0-	Per Ton.
ditto, to arrive . . . .	6 10 0-6 15 0		arrive (hammered)	21 10 0-	
Nail rods . . . . .	7 15 0-8 0 0		ditto, in bags . . . .	23 0 0-	
" Stafford, in London .	8 7 6-9 0 0		English, Spring . . . .	15 0 0-23 0 0	
Rails . . . . .	8 10 0-9 10 0		QUICKSILVER . . . .	0 1 lb. 0 2 0-	
Hoops . . . . .	10 0 0-10 10 0				
Sheet, single . . . . .	10 0 0-10 10 0				
Fig. No. 1, in Wales . .	3 15 0-4 15 0				
Refined metal, ditto . .	4 10 0-5 0 0				
Bars, common, ditto . .	3 15 0-4 0 0				
ditto, Swedish, ditto . .	6 0 0-6 10 0				
ditto, rail, in London .	13 10 0-14 10 0				
In stock to arrive . . .	2 13 0-2 15 0				
Fig. No. 1, in Clyde . .	2 19 6-3 2 6				
ditto, in Tyne & Tees . .	2 17 6-3 2 6				
ditto, forged . . . . .	4 10 0-5 0 0				
Staffordshire Forge Fig .	4 10 0-5 0 0				
Welsh Forge Fig . . . .	3 0 0-3 8 0				
LEAD.			ZINC.		
	£ s. d.			£ s. d.	
English Pig . . . . .	22 10 0-23 0 0		In sheets . . . . .	33 0 0-	Per Ton.
ditto sheet . . . . .	23 10 0-24 0 0				
ditto red lead . . . . .	24 10 0-25 0 0				
ditto white . . . . .	27 0 0-30 0 0				
ditto patent shot . . . .	26 0 0-				
Spanish, in bond . . . .	22 0 0-				
American . . . . .	none.				

\* At the works, 1s. to 1s. 6d. per box less.

**REMARKS.**—The slight change in the appearance of our market, as noticed in last week's Journal, has continued to manifest itself more visibly than hitherto, a better feeling existing with regard to purchases, which has consequently tended to strengthen quotations; the movement, however, is very slow, at the same it partakes of a sound character, and favours an increased improvement. Prices are now considerably reduced, stocks everywhere have been kept low, and the last few months' enquiries have been extremely limited. Sellers must not be too hasty in advancing prices, or else another check may be experienced.

**COPPER.**—Several orders have been executed lately for shipment, principally for brazery sheets, but for cake, &c., there has been but little doing. The smelters continue to adhere to fixed rates, although the market exhibits great weakness. The monthly meeting passing over without any alteration imparted more confidence to merchants, but amongst dealers generally the prevailing opinion is in favour of a decline. The arrival of ores from South America has been large, and consignments of considerable quantities of South Australian ore and cake, &c., may now be looked for. The next sale of foreign ores at Swansea will be held April 27.

**IRON.**—The market is rather firmer, but no change can be quoted in prices. Rails, bars, hoops, sheets, &c., are much about former quotations. Scotch pigs have declined to 52s., mixed numbers. The shipments, compared with this last year, have fallen off, and little or no desire to speculate is observable at present; the almost total absence of speculative feeling gives a very lifeless appearance to the market. Stocks are heavy. It is not unlikely that buyers may be disposed in a short time to enter into open contracts, or buy forward with three months' premium, should prices permit of their doing so at about 50s., mixed numbers, g.m.b., but at the moment it would be rather premature, as prices are a little too high, owing to the dull state of business, and the increased amount of stock; besides, at 45s. to 50s. ironmasters are invariably disposed to allow their stock to accumulate, which would materially assist in making a firm market, and give the operator a fair chance of making a good margin. Speculative purchases in metals lately have, unfortunately, been turned against buyers; due caution is so very essential.

**LEAD.**—The market is dull, prices having a declining tendency; there is, however, no particular pressure of second-hand parcels on the market. It principally rests with the smelters to make their own prices; no combination is known to exist amongst the smelters of lead, each regulating his own price according to the state of his own books, which gives perfect satisfaction to purchasers of this metal, and acts in no way injurious to sellers. This free and independent mode of dealing would be well if it were practised by other trades.

**SPELTER.**—This metal has declined 10s. per ton, the present price being 25l. 10s.; for arrival it can be bought somewhat lower; the price f.o.b. in Hamburg is quoted 24l. 5s. to 24l. 10s. per ton.

**TIN.**—English remains same as last. Straits has been sold at 109l. cash. Banca, 112l.

**STEEL.**—For arrival, hammered quality, 21l. 10s. to 22l. per ton.

**LIVERPOOL, APRIL 22.**—The general tone of our metal market has experienced but little variation since the date of our last report. There is still an absence of orders, and an apprehension that for the present few will be received; prices remain nominally without change, although concessions are made to secure orders. The price of Scotch pig-iron continues gradually to fall, consequent upon the pressure on the market of parcels for immediate settlement, and the want of confidence by speculators. Shipments show a considerable falling off, being 11,100 tons, against 18,547 tons for the corresponding week of last year. Tin, both English and foreign, is a shade firmer in price, and tin-plates appear to participate in this reaction. There has not been so great a pressure to sell during the past week, and at the moment there is a better enquiry. The demand for copper continues to be limited, and lower prices are looked for. Lead shows no change. The following are the quotations:—Iron: Merchant bar, 6l. 12s. 6d. to 6l. 15s. per ton.—Tin: Common block, 112l. per ton; common bar, 113l.; refined block, 115l.—Tin-plates: Charcoal, 10l. 3s. 6d. to 33s. per box; coke, 10l. 25s. to 26s.—Lead: English sheet, 24l. 10s. per ton; English pig, 23l. 10s.—Copper: Cake and tile, 117l. per ton; best selected, 120l. per ton; sheeting and bolt, 1s. 1d. per lb.—Yellow metal sheeting, 11d. per lb.—Steel: Blistered, 30l. to 40l. per ton; spring, 18l. to 24l.; cast and shear, 50l. to 60l. per ton.

**GLASGOW, APRIL 22.**—We have still to report a drooping market for pig-iron, the price of warrants being to-day 52s., sellers. A considerable business has been done during the last few days at the reduced prices, and there is now less eagerness to sell. The demand for shipment and consumption is slightly improved, but still not what was to be expected at this season of the year. No. 1, Gartsherrie, 56s. 6d. No. 1, g.m.b., 52s. 3d.

In the MINING MARKET, during the past week, a considerable amount of business has been transacted in steady dividend mines, large purchases having been made chiefly for permanent investment. There has also been a good deal of speculation going on in small shares, and good progress in mines. Tin is getting up again, and Providence and Margaret more sought after, though the dividend mines getting most attention are South Caradon, Grambler and St. Aubyn, Mary Ann, Herodsfoot, and Basset. South Caradon shares have been dealt in at 390 to 400, with a fair demand for them, as they are looked upon as about the steadiest investment in the market; whilst the next dividend and bonus, it is understood, will be 12l. per share for the two months. Basset, 215 to 220, but not so much doing. West Basset, 22½ to 25. North Basset flat, at 11 to 11½; at the meeting, although the accounts showed a dividend of 4s. per share, none was declared. Trelawny, 24½ to 25; the dividend on Monday is expected to be 1l. per share. East Basset, 94 to 96, and very quiet; the mine progresses very satisfactorily; the 80 cross-cut is now about 6 fms. from the south lode, in a fine elvan, and driving faster; the 60 east 10 ft. wide, worth 5 tons per ft.; the winze is down 7 fms., lode yielding 7 to 10 tons per fathom. North Frances, 8½ to 9, and shares more sought after. Lewis, 1½ to 1½



44, owing to an improvement in the adit end of the western mine. The mine, 14 to 15, and shares flat, notwithstanding the improvements in the 70. Tolvalden, 6 1/2 to 7; Redmor, 5 1/2 to 6 1/2; West Powey, 8 1/2 to 9. Wheel Ury, 5 to 5 1/2, and the call of 7s. 6d. made at the meeting paid. Wheel Mary Ann, 43 1/2 to 44, and more enquired for; Herodfoot advanced to 8 1/2; Wheel Edward continues flat, at 6 to 6 1/2; Wheel Harriet, 14s. to 16s.; Providence Mines, 6 1/2 to 6 3/4; East Gumnis Lake and South Bedford, 1 1/2 to 2. Hingston Down, 5 1/2 to 6; the mine is still improving in the shaft. Devon Consols, 460 to 470; a splendid report has been received from this mine. Grambler and St. Anby, 115 to 117 1/2, and a few enquiries. Tamar Consols, 22s. to 23s., and a good business done this week. Pendean Consols, 3 1/2 to 4, also a large business done. South Carn Brea, 4 1/2 to 5; South Tolgus, 70 to 80; Tincroft, 3 1/2; Treweatha, 1 1/2 to 1; West Caradon, 105 to 115.

We often hear it asked of others, and are ourselves frequently called upon to explain, upon what basis the value of mining property is estimated, and the only satisfactory answer we can give is "fancy," and the increasing appetite of the public for something new and spicy, which appetite there is an equal eagerness on the part of miners to pander to, with new dishes, each more seasoned than its predecessor. How else are we to account for new sets, upon which no work whatever has been done, coming out at 20,000l. premium, when many dividend mines are selling for less money, and many good speculations being abandoned, only for want of more capital to make them remunerative? The vagaries of mining speculation are indeed beyond calculation, and we could fill columns with the strangest anomalies. About two years ago Herodfoot Mine was poor, and a meeting held to abandon it and sell the materials. Mr. J. Y. Watson was the only shareholder at the meeting who opposed the winding-up, and advised stopping all operations, except driving the 80 fm. level into the south ground. This was agreed to, and discoveries soon made, so that the mine is now paying dividends of 1000l. to 2000l. a year. When the shares were at 2l. and 3l. each on the market, we constantly called attention to them as being far below their intrinsic value; and now, even at 8l. each, this mine is selling at the rate of 8000l. only, whilst numbers of new and calling mines are fetching more. It is well known that many of our richest mines have been once abandoned for temporary poverty, or because the shareholders refused to subscribe more funds, and were afterwards purchased for a "mere song" by the present fortunate possessors; and new proprietors of such mines taking credit for part of the work done, charging a moderate premium upon their purchase to fresh in-comers, we can understand; but it seems strange to hear of dividend mines neglected, and of 50,000l. and 60,000l. being paid for new sets upon which nothing has been done, though such cases have occurred of late, and seems to illustrate our remarks upon the vagaries of mining. In the neighbourhood of Tavistock, Crelake, in 12,000 shares, without, we believe, any machinery, but upon the discovery of a lode close to the River Tavy was eagerly taken up by the public at 2l. per share (24,000l.), and we hear shares have since been sold as high as the rate of 60,000l.! Next step to Crelake is Crowndale, chiefly belonging to the agents of the Devon Great Consols, and in which a lode has been cut, worth 10 tons per fm. This mine is in 6000 shares, 2s. paid up, and the public are anxious buyers at 3l. 10s. per share, or 21,000l. for the mine, without being able to get them. Now comes the strangest tale of all. Adjoining Crowndale, between that mine and Bedford United, and having on it the lodes both of Crelake and Crowndale, and as good a set as either, is Wheel Crebor, upon which 29,700l. has been expended, and 10,000l. worth of ore sold. The machinery upon it, sufficient for all purposes of working, is valued at 1000l.; and the mine and machinery together were put up to auction, last week, in one lot, and the only bona fide bid from this same public auction was 500l. Can anything in reason explain such an anomaly as this? We could, however, point out more than one good speculation at the present moment languishing, as it were, through the apathy of the shareholders, and from their refusal to pay calls; and many more may be broken up and sold, like Crebor, to enrich the purchasers who may have the spirit to make upon them the necessary outlay. We also know of many shareholders in mines who would grumble at paying a call of 5s. per share to prove a good speculation, but would give 5l. per share premium for a new speculation, without half the merits of the old, if it happened to be rising in the market.

At Devon and Cornwall United Mines meeting, on Tuesday (Mr. S. S. Burt in the chair), the accounts showed—Balance last audit, 462l. 12s. 11d.; ore sold and carriage, 2075l. 14s. 10d.—2536l. 7s. 9d.; mine cost and merchants' bills, Jan. 490l. 11s.; Feb. 460l. 8s.; March, 433l. 4s.; new buildings and sundries, 29l. 10s.; 100d.; leaving balance in favour of adventurers, 1183l. 13s. 11d.; and in the estimated account of receipt and payments before the next meeting, 2043l. 11s. 11d. in favour of mine. A dividend of 1019l. (5s. per share) was declared. It was agreed to cancel 20 forfeited shares, and divide the mine into 4076 shares. Capt. Thomas Neill reported that they would sample on Friday next 200 tons of ore, and from the present prospects of the mine they would continue to sample that quantity.

At Tolvalden Mine meeting, on Tuesday (Mr. A. Bennett in the chair), the accounts showed—Balance last audit, 1828l. 9s. 9d.; mine cost, Nov. to February, 1690l. 18s.; merchants' bills, 628l. 13s. 3d.—3927l. 1s. 4d.—Ore sold, Jan. (lord's) 1-180l. 47s. 6d.; March, 893l. 11s. 9d.; March (lord's) dues, 87l. 6d.; 1487l. 3d.; discount, 3l. 11s. 3d.; leaving balance against adventurers, 1827l. 13s. 4d. A vote of thanks was passed to the pursuer for the satisfactory way the books were kept. Capt. F. Gundry, E. Johns, and G. G. Bennett, reported that they expected to sample on Tuesday next about 220 tons of copper ore, and observed that their position and prospects were of the very best character, and they anticipated after two more sales of ore to have a good balance in the pursuer's hands.

At the Enys Mines meeting, on April 6, the accounts showed—Mine cost and merchants' bills, Aug. to Feb., 1178l. 1s. 4d.—Call received, 335s.; leaving balance against adventurers, 643l. 1s. 4d. A call of 12s. per share was made. Capt. Thomas Waters reported that the apparently inexhaustible mineral character of the district is such that it only requires ground to be properly laid out in length and depth for fair profits to be gained.

At Condarrow Mine meeting, on April 14, the accounts showed—Balance last audit, 119l. 2s. 9d.; mine cost, Jan. and Feb., 1673l. 8s. 11d.; merchants' bills, 273l. 11s. 8d.; 1-20th, 108l. 18s. 5d.—2777l. 1s. 9d.—Ore sold, 2178l. 8s. 8d.; crushing ore, 21. 8s.; leaving balance against adventurers, 96l. 5s. 1d. Mr. Philip Vincent, jun., was appointed surgeon, in the room of his father, deceased. Capt. Nicholas Vivian reported that the tribute ground yielded beyond their expectations, and they trusted would continue to be productive until they had made important discoveries in their explorations.

At the Camborne Consols meeting, on Thursday (Mr. T. Bushell in the chair), the accounts showed—Balance from last audit, 359l. 5s. 6d.; December cost and merchants' bills, 106l. 9s. 11d.; January, 228l. 4s. 6d.; February, 102l. 14s. 10d.; sundries, 7l. 14s. 1d.; royalty, 43l. 17s. 5d.—802l. 6s. 3d.—Ore sold, Dec. 110l. 1s. 4d.; February, 316l. 6s. 5d.; calls received, 457l.; leaving a balance against the mine of 8l. 18s. 6d. A call of 5s. per share was made. The report of Capt. Wm. Roberts spoke favourably of the progress of the mine, stating that if a steam winding-engine were provided, the progress of developing the concern would be much more rapid.

At Bronhof Mining Company meeting, on Tuesday (Mr. Miers in the chair), the accounts showed cash in hand and at bank, 42l. 14s. 4d. A call of 10s. per share was made. The report of the directors stated, that after considerable delays consequent upon the frost, and much additional expense, from the necessary enlargement of the wheel-pit; the same is now completed, and the new shaft in course of being added to the wheel. The liabilities amounted to 632l. 11s. 6d., and as some of the claims are pressing, the board rely on the prompt payment of the call. Captain Barbary reported, that the new shaft had been put in without accident, and the lode was still improving.

At Respyr Mine meeting, on April 7 (Mr. T. Channon in the chair), the accounts showed—Balance last audit, 46l. 5s. 6d.; mine cost and merchants' bills, Dec. to Feb., 277l. 8s. 4d.; calls received, 136l. 4s.; leaving balance against adventurers, 437l. 7s. 9d. A call of 2s. 6d. per share was made. Capt. W. Treary reported that in a few days they would sample about 10 tons of good ore.

At Wheel Zion Mining Company meeting, on Thursday (Mr. R. Hodgson in the chair), the accounts showed balance against adventurers 399l. 1s. 3d. A call of 3s. per share was made. Messrs. Hodgson, Medley, Rees, Powell, and Walker, were elected the committee of management, and the proceedings, which are reported in another column, terminated with a vote of thanks to the Chairman.

At the Great Wheel Alfred Mining Company meeting, yesterday (Mr. Field in the chair), the accounts showed a balance against adventurers of 1137l. 19s. 7d. A call of 4s. 6d. per share was made. The proceedings are reported in another column.

At Wheel Tallack adjourned meeting, on Thursday (Mr. E. J. Wilson in the chair), it was unanimously resolved that the affairs of the company should be wound-up at the earliest possible moment.

At the North Basset Mine meeting, on Wednesday (Mr. Bushell in the chair), the accounts showed—Balance last audit, 188l. 13s. 5d.; advance on tribute, 250l.; ore sold, March, 1642l. 17s. 1d.; April, 2380l. 7s. 2d.—4589l. 19s. 8d.—Mine costs and merchants' bills, March, 1606l. 4s.; April, 1810l. 0s. 10d.; advance on tribute, 300l.; leaving balance in favour of adventurers, 679l. 14s. 10d. Capt. Thos. Glanville reported that the tribute department was looking just as usual. During the past week they had sold tin stuff to the amount of 161l. 9s. 6d. He estimated the sampling on Wednesday next to be about 300 tons of copper ore.

At Wheel Unquately meeting, on Tuesday (Mr. W. Munt in the chair), the accounts showed—Balance against the mine, 477l. 8s. 5d., to meet which a call of 8s. 6d. per share was made. A vote of thanks to the Chairman terminated the proceedings, which will be found in another column.

At Buller and Basset United Mining Company meeting, on Monday (Mr. R. Duke in the chair), resolutions were passed with a view of accepting shares in the name of Mr. Richard Trendelen in discharge of his debt to the mine, and also that Messrs. Martin and Oliver expunge their claim for 2600l. against his estate. The proceedings, which are fully reported in another column, terminated with a vote of thanks to the Chairman.

At the Tye-y-Worglodd Slate Company meeting, on Monday, the accounts showed, not being considered satisfactory, were ordered to be audited. The whole of the directors tendered their resignation, two of whom were re-elected (Messrs. Ben

and Callum); a new director (Mr. Sims), and two auditors, were also appointed. The meeting was adjourned to May 17.

The Sortridge Consols Mining Company have issued the report and statement of accounts in anticipation of the meeting to be held on Tuesday next. The accounts showed—Mine cost and merchants' bills, January, 460l. 18s. 10d.; February, 448l. 10s. 10d.; March, 464l. 1s. 8d.; dues, 108l. 6s. 6d.; salaries, 47l. 5s.—1412l. 19s. 10d.—Ore sold, 1201l. 12s. 7d.; property tax deducted, 5l. 12s. 6d.; leaving balance, being loss on the three months' working, 306l. 14s. 9d. The report of the committee thus explains this item:—"In order to explain the loss shown in the quarterly statement, the committee beg to point out, that the samplings being now bi-monthly, three months' cost falls to be charged against two months' ore; therefore one-half of the net proceeds of the 128 tons of ore sold on the 22d inst.—say, 409l.—must be set off against the loss of 306l. 14s. 9d.; thus showing an actual profit on the quarter of 102l. 18s. 3d." A resolution will be proposed which will obviate the necessity of a similar statement of accounts for the future. The general balance-sheet showed an actual realised balance of 1590l. 0s. 3d., and a total estimated balance in favour of the mine of 2406l. 0s. 3d. Messrs. W. A. Thomas, W. Orr, and R. McCallan all are glad to say that the different points of operation at the mine are progressing satisfactorily. Hitchins's engine-shaft has been sunk about 5 fathoms since the last general meeting. The 62 east and the 74, 62, and 50 west are all promising, particularly the latter, the ground being very congenial, and, from the indications, an improvement may be expected when the lode is met with to the west of the cross-course.

At the Anglo Mexican Mint Company meeting, on Tuesday, a dividend of 16s. 6d. per share was declared for the half-year.

At the Liberty Mining Company meeting, on Tuesday (Mr. R. A. Riddell in the chair), a series of resolutions were passed, with a view of raising additional capital, or authorising the directors to dispose of the property by public auction or private contract. The proceedings, which are fully detailed in another column, terminated with a vote of thanks to the Chairman, directors, and secretary.

At the Santa Clara Mining Association meeting, at Baltimore, April 5 (Mr. R. C. Wright in the chair), the accounts showed a balance in hand of \$999.03. Since they have been able by the use of the steam-engine to keep the water in the lower mine under control, their operations have been prosecuted vigorously in that mine; and all the developments indicate an exhaustless deposit of excellent metal. At the last accounts the miners had driven through 60 ft. of metal-bearing earth, and the face of the drift showed 8 ft. of metal. As to the future supplies of ore, they have every reason to be well satisfied—especially with reference to the lower mine.

The Mariquita and New Granada Company have advices to February.—Santa Ana Mines: Jan. cost, \$11,073; returns, \$20,751.—Marmato: Jan. cost, \$10,919; returns, \$11,190.—Punima: Feb. cost, \$2661; returns, \$3881.

The St. John del Rey Company being now registered under the Joint-Stock Company's Act, with limited liability, have convened a meeting for May 5, for the purpose of submitting a new code of rules and regulations for the consideration of the shareholders.

Mr. Herbert Williams left Liverpool on Thursday, per *Anglo Saxon*, for Quebec, for the purpose of exploring and reporting upon the property belonging to the Canada and Quebec Mining Company. These mines are said to be rich in copper, and the reports of Mr. Williams are anxiously looked forward to for the corroboration, or otherwise, of the statement.

The Western Africa Malachite Copper Mines Company (limited) have received advice from Louisa, under date Feb. 14, advising the arrival of Captain Bray and party of miners' artisans, who went out by the *Cleveland* steamer. They had a pleasant passage of 28 days, all enjoying good health; and preparations were being made for the party proceeding to the mines in about four days after the letters were written.

The company to which we referred in our last as being in course of formation for working Mr. Alfred Jenkin's patent for reducing lead and copper, is now completely constituted, and will be incorporated under the Joint-Stock Companies Act, in the course of next week. The greater part of the shares are reported to have been subscribed for by private parties, and we shall, no doubt, publish a detailed prospectus in our next. The title chosen is the "General Smelting, Reduction, and Coal Mining Company;" the capital is fixed at 100,000l., in shares of 1l. each.

Our Sheffield correspondents (Messrs. Smith) report a very stagnant market in mining shares. The only business done during the week has been in a new mine, called "Cowdon Rake," which have been done several times at 7s. pm., and are rather in demand.

Our Hull correspondents (Messrs. T. W. Flint and Co.) report that there is an improved feeling in our market for railway shares, but not sufficiently marked to induce the public to buy speculatively to any extent. Should the Bank reduce the rate to 2 1/2 per cent., it is not impossible we may see what appeared likely a short time ago—some amount of speculative buying, especially if politics become more settled.

In another column we allude to the papers read at the first meeting of the South Wales Institute of Engineers, in one of which reference is made to a discovery calculated, if proved capable of effecting the improvements claimed for it when tested on the large scale, to revolutionise the tin-plate trade, if not the entire iron industry. The discovery consists in a process of manufacturing MINERAL CHARCOAL, which, it is stated, has been fairly tried by a firm making plates of one of the highest brands, and found perfectly successful—the firm now using it in all their furnaces, considering the quality of the plates superior to any they could make with wood charcoal. About 1000 boxes of plates, and a large number of sheets, have already been made, and an immense saving effected. The cost of manufacturing the MINERAL CHARCOAL is not yet made known, but we shall shortly be in possession of the particulars, when we shall again refer to the subject.

The official return of the exports and imports of the United Kingdom for the month, and for the three months ending March 31, were issued yesterday, and again presents a somewhat unfavourable contrast with the returns for the corresponding months of last year and of 1856, with respect to the exports of articles identified with mining, although compared with the return for the preceding month (February) the progress appears to have been satisfactory, thus proving that mining is recovering from the depression which it has experienced. Commencing with iron, we find that we exported during the month under consideration pig-iron of the declared value of 74,777l.; bars, bolts, and rods, valued at 331,818l.; wire, 14,833l.; cast-iron, 61,647l.; and wrought-iron, 236,388l.; making the value of the total exports of iron of all kinds 718,663l. Of unwrought steel, the United States took 445 tons, and other countries 605 tons, making 1050 tons, valued at 39,576l. Of copper the exports amounted to 200,794l.; of this the unwrought brass and pigs were valued at 36,090l.; sheets, nails, and mixed or yellow metal, 124,773l.; wrought and other sorts of copper, 40,902l. The exports of brass amounted to 16,751l., which includes all kinds. We exported of pigs, rolled and sheet lead, 550 tons, worth 22,141l.; and lead ore, red and white lead and litharge, valued at 13,109l. Of unwrought tin, 173 tons 15 cwt. were exported, valued at 21,455l. The total value of the tin-plates exported was 96,960l. The declared value of the remaining articles connected with the mineral and metallurgical interests was—Coals and culm, 205,999l.; hardware, and cutlery, 262,618l.; steam-engines, 72,157l.; other sorts of machinery, 140,587l.; soda, 13,257l.; and salt, 17,876l.; which raises the total exports for the month to the value of 1,840,667l. Turning to the return of our imports we have the following figures: Copper ore and regulas, 3423 tons; wrought and unwrought copper, 189 tons; iron, in bars, unwrought, 29 tons; unwrought steel, 54 tons; pig and sheet lead, 809 tons; spelter, 1118 tons; and tin, in blocks, ingot, bars, and slabs, 131 1/2 tons.

The subject of LIGHTING MINES WITH GAS on an extensive scale, to which we have often referred and strongly advocated, seems now to be in a fair way of being practically introduced, an eminent gas apparatus manufacturer having offered to erect experimental works on unusually liberal conditions. Several mining agents have looked on the scheme with favour, and would gladly avail themselves of the change if their directors would allow it. These gentlemen will eventually see it to be their interest to do so, as all evidence on the subject proves the saving effected to be very great, and the health and comfort of the men much advanced, tending as a matter of course, to their physical power being more fully exerted in their underground duties.

**GEOLOGICAL MAP OF THE TAVISTOCK MINING DISTRICT.**—Mr. Charles Williams is preparing a map, in the best style of chromo-lithography, to comprise the entire series of mines, with their boundaries, between the Tamar River and the Lydford, supposed to extend twelve square miles. The map will be of a convenient size, and published at 21s. Subscribers' names will be received at the *Mining Journal* office, 26, Fleet-street, and copies supplied as soon as ready.

**BOYDELL'S TRACTION ENGINE.**—In the House of Commons, on Thursday, a copy of the report upon the capabilities of Boydell's traction engine, made by Sir Frederick Abbott, in February last, to the Hon. East India Company, was ordered.

**AN ENORMOUS NUGGET.**—The largest and purest nugget yet discovered, weighing no less than 1743 ozs. 8 dwts., and of the computed value of 7500l., will be exhibited at the Crystal Palace on May 1. It was found at Kingower Diggings, Bendigo, at 18 ft. from surface.

**EXPORTS OF COAL DURING MARCH.**—Messrs. Laird, in their Monthly List, state that the total exports during March, 1858, were 417,463 tons, being a decrease as compared with March, 1857, of 37,465 tons. Of this amount 236,540 tons were sent from the Northern ports; 17,265 tons from the Yorkshire ports; Liverpool, 26,476 tons; the Severn ports, 116, 399 tons; the Scotch ports, 20,875 tons. The total exports from Jan. to March, 1858, inclusive, were 1,079,060 tons.

**COAL CONTRACTS.**—The Cardiff coal merchants have recently lost the contract for the supply of 16,000 tons of coal for the Oriental and Peninsular Steam Navigation Company. The contract has this year been secured by the Newcastle merchants. Five or six of the Cardiff colliery proprietors have for some years past undertaken conjointly to supply the coal.—*Star of Gwent.*

**GENERAL AUCTION COMPANY.**—The practical utility of this project appears to have been already in a measure acknowledged, since it will be seen, by advertisements in another column, that they are now in working operation. The ultimate success of the undertaking, which is of an entirely novel character, depends, however, almost entirely upon the integrity with which its proposed principles are carried out, and the ability with which it is managed. The object of the company is to carry on the business of an individual auctioneer, which is well known to be very lucrative under most circumstances, with a 50,000l. capital to fall back upon, so as to enable them to embrace a far more extended sphere of operation. The company will make advances on, and effect the sale of, any description of landed or other property, reversions, &c., and undertake the collection of rents, and the advance of capital upon cargoes, consignments of colonial and other produce intended for disposal. The peculiar feature of the project, and that upon which the promoters rely for obtaining the support of capitalists, is that the outlay of capital may always be covered by an equivalent of easily convertible property, being that upon which the advance has been made. With judicious and trustworthy management, there are fair prospects of the shareholders being amply remunerated for their outlay.

A petition for winding-up the Rhydydefd Colliery Company (Glamorganshire) has been presented to the Court of Bankruptcy, and will be heard before Mr. Commissioner Foulque on the 30th inst.

At Wheel Maria, last week, a man named Stevens, son of Capt. Matthew Stevens, had his back broken by the fall of a scale of ground from the roof of the mine whilst at his work.

**THE MINING POPULATION OF VICTORIA.**—The census of Victoria, which has just been completed, gives as the result a population of 264,334 males, and 146,432 females, making a total of 410,766 souls. The total population of the gold mines is estimated at 166,550, of whom 136,060 are males, and 30,490 females. This is equal to 37 per cent. of the entire population of Victoria. The Chinese number 24,273, all males; 23,623 are on the diggings, and 650 distributed over other parts of the country. The aborigines number only 1768. Of the population, 69 per cent. only are lodged; 140,892 dwelling in tents and houses of a temporary construction; and out of the 166,550 distributed over the gold fields, 124,991 are dwelling in tents, three-fourths of which consist of a single apartment. The increase of the general population within the three years of 1855, 1856, and 1857, has been 178,968, or 73 per cent.

We frequently have occasion to announce the arrival of vessels from Sydney and Melbourne with cargoes of copper in ore and cake, and it appears the general reader infers that they are the produce of these colonies; therefore it is necessary to explain that they are the yield of South Australia, which is universally known for the extraordinary richness of its copper mines, and ores are merely forwarded to these ports for facility of transmission to England, inasmuch as the vessels from Sydney go up to Adelaide with coal, and take back the ore as ballast, which is then transhipped to the large wool vessels, and thus brought home at a much less cost than if exported direct to Europe from Port Adelaide. From Melbourne the large quantities are taken on board, at a mere nominal freight, as dead weight to counterpoise the lightness of wool, which constitutes the more usual freights of the large clippers.

The Cape Town Railway and Dock Company have advices to March 10, to the effect that their engineer, Mr. Browner, having, after a complete survey of the line, come to the decision that the railway between Cape Town and Wellington could be executed within the sum of 500,000l. authorised by the Colonial Parliament, had on the previous day sent in a tender for the execution of the works, together with plans and sections, and was strongly hopeful of its being accepted.

The HELVELLYN CONSOLS are completely registered; the committee will be at once formed, and work resumed there this week, by commencing a new level near the road, as to take the copper seen in the level at a great depth.

A project for the Algerian Railways, with a guarantee of 5 per cent. from the French Government, is likely to be soon definitely launched on the London and Paris markets. The capital required for the first section will be below 2,000,000l. sterling.

## LEAD ORES.

Sold on the 17th April.				Purchasers.	
Mines.	Tons.	Price per ton.			
South Giaras .....	66	£18 18 6	0	T. Somers.	
ditto .....	11	12 5 0	0	Sims, Williams, & Co.	
Wheel Trelawny .....	23	17 6 0	0	ditto	
Sold on the 19th April.				Purchasers.	
Frongoch .....	50	14 6 0	0	J. Bibby, Sons, & Co.	
ditto .....	50	14 16 0	0	ditto	
Cefn Brynwy .....	60	14 3 6	0	Walker, Parker, & Co.	
East Daren .....	50	16 16 6	0	J. Bibby, Sons, & Co.	
ditto .....	70	16 16 6	0	Sims, Williams, & Co.	
Goginan .....	43	17 3 0	0	ditto	
ditto .....	7	17 9 0	0	ditto	
Cwm Erllin .....	40	16 16 0	0	ditto	
Foxdale .....	100	28 2 0	0	Sims, Williams, & Co.	
Ticketing at Holywell, 22d April.				Purchasers.	
Westminster .....	60	13 7 6	0	A. Eytton.	
Maesgyn .....	40	13 11 0	0	Newton, Keates, & Co.	
Mount Pleasant .....	20	13 14 0	0	ditto	
ditto .....	4	16 17 0	0	ditto	
Brynmor Hall .....	7	14 0 0	0	A. Courage.	
ditto .....	1	17 6 0	0	A. Eytton.	
Herward United .....	2	14 5 0	0	A. Courage.	
Sold on the 22d April.				Purchasers.	
Wheel Mary Ann .....	90	27 7 6	0	T. Somers.	

## BLACK TIN.

Sold on the 21st April.				Purchasers.	
Mines.	Tons c. q. lb.	Price per ton.	Amount.		
Great Wheel Vor .....	23 11 3 19	£25 0 0	£1533 14 6	Chyndanor.	
ditto .....	5 4 2 20	54 10 0	285 5 0	ditto	
ditto .....	14 0 18	65 0 0	910 10 0	Mellannear.	
ditto .....	8 4 3 21	54 10 0	449 9 0	ditto	

## COPPER ORES.

Sampled April 7, and sold at the Royal Hotel, Truro, April 22.						
Mines.			Mines.			
	Tons.	Price.		Tons.	Price.	
Devon Great Consols	121	£3 16 0	Marke Valley	92	£2 5 6	
ditto	120	3 15 0	ditto	72	3 6 6	
ditto	119	8 13 0	ditto	35	3 17 0	
ditto	114	2 19 0	ditto	31	7 3 6	
ditto	110	8 12 6	Bedford United	104	3 6 6	
ditto	109	3 2 0	ditto	101	6 19 0	
ditto	104	3 5 0	North Wheal Robert	71	3 10 0	
ditto	98	8 17 6	ditto	68	7 11 0	
ditto	97	8 6 6	ditto	66	7 10 0	
ditto	94	8 15 0	Holmbush	56	9 6 0	
ditto	93	3 7 6	ditto	55	9 3 0	
ditto	89	1 12 6	ditto	40	9 13 0	
ditto	87	4 8 0	ditto	23	8 18 0	
ditto	80	8 3 0	ditto	16	9 12 0	
ditto	74	2 17 0	Wheal Edward	80	8 6 0	
ditto	72	1 7 6	ditto	45	1 19 0	
ditto	65	5 6 6	ditto	38	3 19 0	
ditto	56	5 18 0	ditto	28	6 9 0	
ditto	51	8 6 6	ditto	20	6 13 0	
ditto	50	8 4 0	Devon and Cornwall	74	3 11 0	
ditto	49	6 2 0	ditto	55	2 16 0	
ditto	42	4 4 0	ditto	24	12 16 0	
ditto	38	2 7 6	Sortridge Consols	74	6 2 0	
ditto	30	4 13 6	ditto	64	6 2 0	
ditto	28	2 2 0	Great Sheba Consols	103	1 3 0	
Phœnix Mines	102	5 4 0	ditto	29	1 18 0	
ditto	83	4 10 0	Wheal Arthur	43	1 0 0	
ditto	73	5 6 0	ditto	42	2 6 0	
ditto	72	3 14 6	ditto	40	6 0 0	
ditto	66	3 15 6	Kelly Bray	53	8 15 0	
ditto	58	11 5 6	ditto	36	3 5 0	
ditto	35	6 6 6	ditto	16	3 6 0	
West Caradon	92	6 11 6	Wheal Friendship	58	6 19 0	
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### Notices to Correspondents.

\* Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly *Aid* on receipt: it then forms an accumulating useful work of reference.

**DERBYSHIRE MINING CUSTOMS.**—A person having purchased shares in a lead mine in Derbyshire, carried on under the High Peak mining laws, and not having signed a transfer of the shares, can he be compelled to pay calls on them? or can the company compel him to forfeit those shares?—B. C., *Chatterfield*.

[The question is whether "B. C." is the transferee of the shares, and so appears in the barometer's book? If he is, then he is liable for calls duly made thereon; if he is not such transferee, he is not liable for nor can he be compelled to pay calls. If, however, he has bargained for the transfer of shares to him, the person with whom he has so bargained can compel him to indemnify him from the payment of the calls. The question is not whether "B. C." has signed a transfer, but whether the person from whom "B. C." obtained the shares has transferred them to "B. C." and whether such transfer has been entered by the barometer in his book. If a person having shares in a mine refuses to join his partners, or the owners of the other shares, in working the same, or to pay his proportion of the expenses of working the same for six days after demand, he forfeits his shares to his partners, who are entitled to recover such calls by action in the barometer Court.—See *Tapping's High Peak Mining Customs*, p. 104.]

**RATING OF MINES.**—The reason being so far advanced, and, as I am given to understand, two of the Cornish Members being unable, owing to indisposition, to attend to their duties, we may reasonably suppose that no steps will be taken for the purpose of bringing in a bill this session. It still behoves those who have the mining interest at heart to watch the proceedings, not only of those in Parliament, but the committee who were formed in London for the purpose of protecting the shareholders of the various mines. Circumstances have hitherto, despite the energies of Mr. Nicholas Kendall and his fellows, been in our favour; this, however, is a motive for further exertion. Should we relax, by a side wind, or some other contrivance, we might find ourselves defeated almost before we knew that the battle had again commenced.—CAPT.

**IRISH COPPER MINES.**—"Argus" should apply to Mr. Wm. Connell, Cork, respecting the Coosheen Copper Mine. We do not know why the old shareholders have not been paid.

**COMPANY OF COPPER MINERS IN ENGLAND.**—Your correspondent, who suggests that the directors should write off the balance against the Church Fund in the general accounts of the company, probably does not see that the whole burden would thereby be thrown upon the stockholders. The request of which he speaks seems to attach to the preference shareholders, and then only. For six years these fortunate gentlemen have received their 7 1/2 per cent. per annum, without diminution of any kind, and whatever has been done for the mental and moral improvement of the labouring class must have been paid for by the workpeople themselves, or by the stockholders. This fact is made somewhat stronger by what was announced at the meeting in 1857, that two-thirds of what had been voluntarily contributed to the Church and School Fund came from the stockholders, and one-third from the shareholders.—A. B.

**TYWANHALL MINE.**—I almost fear the remarks in your last Journal, relative to myself and this mine, were written by the pen dipped in ill-feeling. Why should any one void of practical knowledge attempt to ridicule men of 25 years' daily practice in mining? Let the author come from behind the bush and give his name boldly, like an honest man, and then I will endeavour to vindicate myself from the impressions he would fain convey to the public.—J. DALE, *St. Stephen's St. Austell*.

**TYWANHALL MINE.**—Seeing some remarks upon Capt. Dale, in connection with the Tywanhall Mine, in your last Journal, I beg to inform your readers that I have known Capt. Dale from his youth, and recently have been agent with him in this mine, and am sure the person who speaks against him as a miner or a good man of business does it through want of knowledge of his real character. Capt. Dale is too well known in this neighbourhood for things of this kind to do him any injury.—S. M. ROGERS.

**TYWANHALL MINE.**—The writer last week shows himself ignorant on the subject of this mine. In the first place, he calls it a deep mine, when the deepest level is no more than 100 fms. sunk on the course of the lode, which underlies 4 ft. in the fathom, so that would not be more than 66 fathoms perpendicular. Is this a deep mine? Then he compares it with Great Wheal Vor and Great Wheal Busy—what a contrast! Perhaps he has no idea that Tywanhall was worked by the Messrs. Taylor in connection with three other mines (each having a shaft) which had been previously worked separately from Tywanhall. This makes it a large undertaking, which Capt. Dale never thought of doing. The present party intends to work that part of the mine formerly called Wheal Rock. Then, again, he says that Capt. J. Edwards knows the mine well; this also shows his ignorance in the matter, as Capt. Edwards never saw the bottom of the mine, or scarcely any other part, as he never had an opportunity of being in the neighbourhood in the last working. Whether or not "Tywanhall" requires a more skillful management and a more persevering proprietary than Capt. Dale and his company remains to be proved, as a short time will soon determine the question. I believe that Capt. Dale will effect the object he has in view, in having with him the Hon. William Napier and some other gentlemen who have and can still work larger mines than Tywanhall. This is my sincere wish, knowing it will be a benefit to the neighbourhood, and make a good and lasting mine.—H. D.

**TYWANHALL.**—Your correspondent, while sounding his own praise, and of those parties with whom he is connected, endeavours in his remarks to throw a great slur upon Capt. John Dale. He states—"Tywanhall requires a more skillful management and a more persevering proprietary than Capt. Dale and his company." In the same Journal, from another correspondent, we are told that Capt. Dale has been there, and paid all the labour cost, the merchants' bills have been partially liquidated, and there is every prospect that, under proper and competent auspices, the mine will soon be in full force. With regard to the skillful management of Captain Dale, that gentleman's competency and sound practical knowledge are well known and estimated in the county, so that any anonymous attack must fall harmless, whether it be from a disappointed neighbour, or a peripatetic self-constituted judge of the abilities of others, which probably, judging from their own, may be very light. Had not the embarrasments which occurred last autumn taken place, sufficient capital would have been not only promised, but banked, to have carried out the undertaking, independent of whatever might have been obtained from the sale of ore. In another portion of the same communication he says—"Capt. Dale may rest assured the property is really valuable; his promises are not exaggerated; and had the company but perseverance they would, doubtless, have been rewarded." He further tells us he has examined several hundreds of mines—that Capt. John Edwards was the right man in the right place. Any one enquiring would have been pleased to receive an answer, and this is simply done by "J. E." The other referred to contains no sterling information; it is a recommendation to one party, a censure to others; tinged all through with self-sufficiency and egotism.—T. B.

**LEAD SMELTING.**—Pity can any of your readers inform me how the double reverberatory furnace of Mr. Jenkin answers, and of which you gave a description in 1854 or 1855? also stating one was erected at the Arkendale Mines, in the north of Yorkshire. Perhaps some of your readers in that locality will afford this information for the use of those who, like myself, are connected with the smelting of lead ores.—J. W. H., *Leeds*.

**DRAINAGE OF MINES—TURBINES.**—In your last Journal, "A Miner" enquires if the turbine could be applied to utilise the drainage water which is constantly raised out of mines, and thus assist the power now obtained from steam. There is nothing to prevent this. The turbine, as constructed by us, is applicable to any fall or any quantity of water. Circumstances would determine what position would be most convenient to place it in, so as to derive the advantage of a greater or less fall. With regard to the cost of the turbine, as compared to that of the ordinary water-wheel, its small size on high falls places it in this respect beyond all competition. On falls from 20 ft. and upwards the cost of a vertical wheel increases rapidly, and on arriving at 50 or 60 ft. the expense becomes so great as frequently to prevent its use. The great water-wheel at the Laxey Mines (Isle of Man), which is on a 73-ft. fall, cost several thousands of pounds. Now, the very reverse takes place with the turbine, for its size diminishes as the fall increases in height. This machine is certain to be extensively employed, sooner or later, in all our mining districts.—MACADAN BROTHERS and Co., *Soho Foundry, Belfast*, April 20.

**SAMPLES' FEES AND ACCOUNT-HOUSE EXPENSES.**—You have done great good by exposing the evil and the enormous expenses entailed upon mining companies by the samples' dinners. A greater and a still more crying ill is the account-house expenses. It would be better that every captain's salary should be raised, than once a month the account-house should be made an arena for the "authorities" who, now the ore is actually discovered, pretend that they pointed out where to find it, and their attempt to detract from the opinions of those who gave their advice when things looked unpromising, is well exposed. Your correspondent has handled the subject admirably.—G. T.

**"G. W." (Park-road).**—The question is difficult to solve. The most reasonable probability is that it was done by some aqueous action during the primary period.

**LEVANT MINERAL COMPANY.**—As this company held their meeting privately, it probably would be an act of grace to those who speculate in their shares if they would circulate some report as to their proceedings, through a public medium. I was in hopes to have seen some notice in the *Mining Journal*; the cause has been satisfactorily explained there, and I trust that for the future those who may be inclined to invest in that stock will be enabled soon to obtain some correct public information as to what the company are really doing. Publicity can do no harm, while privacy gives rise to suspicion.—K.

**AMERICAN DOUBLE FURNACE.**—We hope shortly to publish all the particulars of this invention. The notice in last week's Journal presents all the information we at present are in possession of.

**PATENT PROCEEDINGS.**—Your correspondent, "Nonengarius," was very quick at attacking Mr. Oxland, stating that his process was identical with one described by Dr. Aiken, in his *Dictionary of Chemistry*. Mr. Oxland stated that when he would point out to him that his process was similar, he would publish a history of his discovery in the Journal. "Nonengarius" was the silent. Another correspondent then referred to the report of Dr. Percy's lecture, Feb. 7, 1857, published in the *Mining Journal*, and after that Mr. Oxland held his peace.—QUIZ.

**GREAT FOLIOGOTH.**—I read in your Journal of the 10th inst. a notice, signed "An Unfortunate Adventurer," complaining that he had received no statement of accounts. If your correspondent is a shareholder, and requires information, I am authorised by the directors to furnish it on application.—W. C. FOUTLES, Sec., 38, Old Broad-street.

**ADELAIDE LAND AND GOLD COMPANY.**—I was glad to see the notice in last week's Journal, as showing that some of the shareholders are desirous of knowing about our affairs. What are the liquidators about? When they were appointed, it was surely intended that they should keep the general body of proprietors informed of their proceedings, by publishing, at least, the results of their transactions. As it is, what confidence can we have in their proceedings, or what can we know of our prospects? I trust the liquidators will see the necessity of being more communicative.—S., *City*, April 20.

**EAST RUSSELL: ENNOR, MYERRELL, AND OTHERS.**—The exposure of the three gentlemen in your last week's Journal is very good indeed, and I do not see how they can possibly get out of the difficulty in which they are so skillfully placed. It might not be amiss to ask Captain Metherell what has become of the immense quantities of ore he was going to sample all at once, if he could only get a grinder.—R. S., *Plymouth*.

**MANHOOT SHIPS.**—A meeting of shareholders of the *Leviathan* was held a few days since. From this, we are informed that about 200,000l. is required still to complete her; when finished she will cost over 800,000l. She is not to be ready for sea before the autumn, and then will only make trial voyages to America. In the late gale of wind she broke from her moorings at Deptford. It is fearful to contemplate how such a large mass will take the wind when exposed to a heavy storm at sea. It has lately been much the fashion to decry wooden ships. Lord Elcho stated, a few nights since, that the vessels invented by the Emperor of the French, plated with iron, and which were supposed to be bullet proof, had turned out to be failures. There has been more money spent in this country in experimental shipbuilding than any other in the known world. It is time that, as far as the nation is concerned, this extravagance should be stopped. What we require is ships for service, not for show, and it will be time for merchants and others to make improvements when we find the craft we have in use are not fit for service. The great fault of our naval men has been big ships. Look at the cost of the model ship *Sidon*, constructed under the superintendence of a gallant admiral, and refer to the opinion of the Surveyor of the Navy. In the last war, had we had a sufficient number of small vessels, we should have been able to tell the Russians a different story; instead of which we proceeded to sea with huge floating castles, unwieldy to manage, making a great show, but doing no service.—ECONOMY.

**SUBSCRIBERS IN AMERICA.**—Our friends in America are informed that they can obtain the *Mining Journal* by ordering it from a bookseller in any of the principal towns in the United States. Mr. Trübner, of Paternoster-row, is the London agent, and sends parcels by every mail to the principal booksellers and news agents there.

\* The MINING JOURNAL can be procured at our office by Eleven o'clock on Saturday morning. Newsmen, therefore, can make the necessary arrangements to have the Journal at the several stations in time to forward by the mid-day trains, enabling many of our subscribers to receive their copies on the day of publication.

## THE MINING JOURNAL

### Railway and Commercial Gazette.

LONDON, APRIL 24, 1858.

The more we consider the vast importance of the mining interests in association with the general prosperity of the empire, the more necessary does it appear that measures should be adopted to bring all identified therewith into close and constant intercourse. The mine owner, the producer, the smelter, and the manufacturer, are essentially linked together in the question, while the general public, who support and invest in mining enterprise of every phase, are even more dependent on a source of immediate communication. The broker, therefore, is the representative of all, and the only medium whereby transactions can be effected between the different classes who constitute the mining community; therefore, it becomes a point of no inconsiderable moment to determine what steps should be taken to establish the means of intercommunication and intercourse on such a footing as shall meet the wishes and requirements of the different branches of this industrial class. Hitherto there has been an exclusiveness in the combinations which have been formed by the brokers, which has created dissatisfaction, if not distrust; and for years past there has been a growing feeling that something more than a mere Mining Exchange was required. However, as a *pis aller*, such an establishment was organised, and rules and regulations were subscribed to by its members; but this first step in the right direction was quickly compromised by a discreditable departure, on the part of some of its members, from the principles laid down, while there was an equal want of firmness and decision on the part of the others to maintain and enforce a strict observance of the regulations of the house. The necessary consequence was a secession of the most respectable members of the association, and ultimately a total disuse of this system of business intercourse. It, therefore, now becomes a question not only of interest, but of import, to determine on a course of action which shall meet the deficiency which characterised the late Mining Exchange, and at the same time consolidate the views of every branch of the mining community. It is not an easy thing to please everybody. We have not yet found out the royal road to wisdom in this respect, therefore are reluctant to suggest prematurely any system of action whereby the interests of all concerned may be met, but prefer to open our columns to communications from correspondents, that every point may be discussed before any definite principle is laid down. We have our views on the subject, and believe they could be carried out efficiently, if firmness in execution be exercised in the punctilious observance of the rules of practice to be established. Already we are in receipt of many letters on the subject, but their object is chiefly to draw our attention to certain points and defects of system, rather than to point out a remedy for the evil. One correspondent pertinently asks whe-

ther "it is not strange the mining market does not supply a sufficiency of brokers disposed to form themselves into an association to supply the clients and the public with a record of transactions truly and candidly made? Does the apathy arise from an overweening anxiety not to encourage speculation; or are their transactions with each other and the public conducted on such principles that accurate information given to the latter would not at all times be found convenient by the former?" The mining brokers are literally put on their metal in this matter. The public are not satisfied with the system of business now generally adopted; and surely the mining interest is one which, from its extent and nationality, is worthy of being represented by an institution of the kind under consideration.

In nearly every instance in which an author has attempted a description of Nova Scotia, it has been declared to be an unattractive and valueless country, and its interests have thereby been prejudiced in the minds of those in a position to afford it the necessary assistance. An adequate amount of capital is ever one of the first requirements of an undeveloped district, yet until within the last ten years Nova Scotia was comparatively unknown to British capitalists, and but few energetic endeavours were made to render its capabilities generally known. Its enormous mineral resources were foremost in bringing it into notoriety, and we believe that ere long it will occupy a prominent position in that branch of industry. An excellent little treatise\* has just been issued, by authority of the Provincial Parliament, from which a vast amount of useful knowledge may be obtained; its geographical and geological features, products and resources, climate, manufactures, and commerce, are fully discussed; and its institutions and social prospects carefully considered.

It may safely be averred, from facts already clearly substantiated, that Nova Scotia has been endowed by nature with mineral wealth in an extraordinary degree; and considering that its mineral resources have received but little attention in the way of exploration, it is not improbable that they may be greater than now supposed. Granite of excellent quality is abundant in many places on the Atlantic coast; the quarries which have been worked to the greatest extent being at Shelburne and Halifax. From the "Queen's Quarries," at the latter place, large quantities have been taken for the construction of the fortifications, for which purpose it is highly esteemed. Shelburne granite has been exported to the United States and neighbouring provinces; and there are also large quantities ready for shipment at Barrington, near the mouth of the Musquidobit river, in the vicinity of Cape Canso, and at various other places on the Atlantic coast. The slates of the older metamorphic district afford, in many localities, good materials for the rougher kinds of walls; they can be quarried and fitted for building at very slight expense. The Devonian and Silurian district is rich in building materials. Scenite and porphyry of beautiful quality are found in great abundance in many places on the Cobequid Hills, on part of the shores of the Bras d'Or Lake, and various other places in the Island of Cape Breton, and in the range of hills which skirt the Annapolis valley on the south. Slate of excellent quality is found at New Canaan, along the range of hills lying between the Stewiacke and the Musquidobit rivers, in the southern part of Pictou county, and at various other points. Quarries have been opened at New Canaan for procuring roofing slates; but although the slates were found to be of good quality, the cost of transport, owing to the inland position of the quarries, was so great that they could not be profitably worked in a country where roofing materials of wood were so cheap. This difficulty will probably soon be obviated, as railroads, now in course of construction, will run in the immediate vicinity of these quarries. Sulphate of barytes is found in the hills immediately north of the Stewiacke, at Five Islands, on the north shore of Minas Basin, and at some other localities. Mineral paints in great variety are procured from the iron ores of the Cobequid Hills: one description, which is rapidly growing into repute throughout North America, possesses the rare and invaluable quality, when mixed with oil and laid on as paint, of rendering wood impervious to damp, and proof against fire.

It is probable that, in proportion to its extent, Nova Scotia stands unequalled in the productive capabilities of its coal fields. The most western of these, as far as has been ascertained, exists at the Joggins, on the shore of Cumberland Basin. In this coal field there are 76 seams of coal, with an aggregate thickness of 41 feet; six of these may be profitably worked, comprising together a thickness of 18 ft. 6 in. Two only of these seams are as yet worked; and the two shafts which have been opened are within half a mile of the shore where the coal is shipped. About 20 miles southeast of the Joggins, at Spring Hill, on the northern skirts of the Cobequid Hills, is another great coal deposit, which geologists declare to be quite a different field. This being in an inland position has not yet been opened, or even thoroughly explored. Its coal has been proved, however, to be of excellent quality, and it comprises many valuable beds, one of which is 12 feet in thickness: the construction of a railway, which a rather extraordinary natural valley between Spring Hill and Parrsborough, a good shipping place, renders easy, must be simultaneous with the opening of the Spring Hill coal mine. Another coal field can be traced along the southern side of the Cobequid Hills, from Cape Chignecto to the borders of Essex county, but the precise extent and value has not been yet ascertained by any close examination. Another coal field exists on the southern side of the Minas Basin, extending quite across Hants and the southern part of the Colchester counties; several small seams appear at or near the surface along the banks of the Kennetcook, Shubenacadie, and the Stewiacke, and of small streams emptying into them. It is believed that a survey of this district would reveal extensive and valuable coal deposits.

The next great coal field to the east is that of Pictou, the principal bed of good coal in which are of the respective thickness of 24 ft., 12 ft., and 6 ft.; the produce is conveyed six miles by railway to Pictou Harbour, the place of shipment. Beds of coal occur at Little River and Caribou Cove, near River Inhabitants; in the former place the coal is of good quality, and found in a seam 4 feet thick, two miles and a half from the shore. At Caribou Cove the quality is not quite so good, but the vein is upwards of 11 ft. in thickness, and good coal also occurs in the vicinity of Port Hood, but none of these beds have been worked to any extent. A field, comprising 34 seams, of which four having an aggregate thickness of 20 ft. are workable, exists on the north of Sydney Harbour, Cape Breton county, where a mine has been opened, and the coal is exported from Sydney Bay, whence it is transported by three miles of railway. Another field extends quite across Boulardrie Island, from one of the seams of which, 4 ft. wide, some coal has been raised. A seam, 9 ft. thick, has been opened at Bridgport. The coal fields of Cape Breton county appear almost inexhaustible. The mines at the Joggins, Pictou, Sydney, and Bridgport, are worked by the General Mining Association. From 1827 to 1853, inclusive, 1,042,621 Newcastle chaldrons were raised from the mines of the whole province.

Passing the freestone, lime, gypsum, marble, and ochres, in which Nova Scotia abounds, we come to the iron. The ores of iron are found in great variety, and in several places widely removed from each other. The most western deposit of any extent yet discovered occurs at Clement, on the south side of Annapolis Basin; the vein may be traced for a mile, and is of the average thickness of 9 ft. 6 in. A bed of iron also occurs at Nicus; there are several parallel veins at this place, varying from 4 ft. to 10 ft. in thickness; six of these have been examined and accurately defined, and the ore contains 55.3 per cent. of iron, of excellent quality. The next great deposit of iron ore is found on the southern slope of the Cobequid Hills: this deposit, considering its extent, and the variety and quality of its ores, may be pronounced the most important in the province. Between the Debert River and a point some two miles westward of the Great Village River, the vein extends nearly east and west, and consists of a veinstone of ankerite, associated with sphatose iron, surrounding and including a number of other varieties of ore. Red and yellow ochre ore and brown hematite are found in large quantities, and specular and magnetic ore occur in small veins. At one spot on the bank of the Great Village River the whole vein is 120 ft. wide, whilst at another, not far from the most eastern point to which it has been traced, it is over 500 ft. It is known to extend about 30 miles, but supposed of much greater length. Furnaces and other necessary works were erected, and the manufacture of iron commenced, a few years since, at the spot where the vein crosses the west branch of Great Village River, by a few gentlemen of England and Nova Scotia, who were incorporated by the Nova Scotian Legislature, in 1835, as the "Acadian Iron and Steel Company." There seems to be no reason why the operations of this company should not be attended by complete success. The supply of the ore appears almost inexhaustible. The iron made from that ore is equal to the best quality produced by any other part of the world. There are immense forests in the immediate vicinity of the mines, sufficient to supply them with charcoal, at a small expense, for many

\* *Nova Scotia Considered as a Field for Emigration.* By P. S. HAMILTON. London: JOHN WEALE, 59, High Holborn.



Other deposits exist at Pictou, and near the mouth of the Shuben-  
sippi; and the province also abounds in copper ore, galena, manganese,  
but we must defer a more detailed account of the metallic minerals  
our next week's Journal.

Whatever may be thought to the contrary, more is doing in mining matters  
than is usually supposed. The mines generally are becoming more de-  
veloped, and, as a matter of course, more nearly remunerative: time has not  
been given for most of them to be sufficiently opened out as to return  
profits of ore in sufficient abundance to pay expenses or profits.  
The Wheal Russell, Collacombe, and Hingston Down appear to be ad-  
vancing fast in public favour in their several localities—a good criterion.  
There are more than the usual number of mining gentlemen from London,  
and in the counties of Devon and Cornwall; indeed, more than have been  
in a long period. Rumour is rife of mines about to be set to work. The  
impression on the minds of most persons whose experience and position  
entitle their opinions to respect, is that metals will advance again shortly.  
The price of ores is considerably lower than a short time ago, yet  
they are fair, and some years since would have been deemed great. Con-  
siderable is evidently returning, and with money cheap, agricultural pro-  
ducts, and manufactures reviving, we are not surprised that mining is  
becoming more active; indeed, we have all along predicted its ad-  
vance, when it is fully established we feel it will be on a foundation and  
confidence which British mining never before enjoyed. Experience has  
taught all concerned to be more guarded than at any previous period to  
be less lavish in their expenditure; and even the landlords have most cer-  
tainly evinced a disposition to liberality, many of them modifying their  
terms and claims for damage very considerably, or declined to receive them  
altogether until the mines become remunerative. In instances of the latter  
kind it has been found true policy; we, therefore, hope for the sake of all  
concerned this example will be more extensively followed, by which means  
stimulus will be given, many struggling mines will be enabled to get  
through their difficulties, and probably become at a much earlier period  
highly profitable to their proprietors.

We are satisfied, from the best authority, a change is at hand. The  
symptoms of which we speak already displaying themselves in the mining  
interests are a correct and abundant evidence of returning prosperity to  
these interests we trust no political or monetary changes may defer or mar-  
red it not been for the latter influence, we verily believe we should now  
have been in a state of unexampled prosperity for mining.

The WHEAL TALLACK MINING COMPANY held their adjourned meet-  
ing on Thursday, when it was unanimously resolved that the concern should  
be forthwith wound-up. Here was a mine with a balance of assets over  
liabilities of £457, which had sold tin, and if all the calls had been paid  
would have been in a good position. Disagreements, however, arose be-  
tween certain sections of the shareholders; these could not be arranged, and  
the consequence is that for the present the mine is abandoned. We under-  
stand, however, that several of the shareholders who have faithfully dis-  
charged all their liabilities are shortly about to resume the workings under  
energetic management, so soon as they have got rid of the incubus which  
has hitherto retarded the proper working of the mine. According to all  
accounts, the mine is susceptible of greater development; and had not fac-  
tious opposition been shown by a portion of the dissentients, and their calls  
paid when due, there would have been no necessity for the present abrupt  
termination of the workings.

It is to be hoped that those shareholders who may take up the sett will  
not allow it to become, as heretofore, a divided interest, that they will not  
look so much to the officials as to the mine, and that they will regard the  
experience of those connected with mining in preference to any delegates  
despatched from districts where mining is only known by name. We will  
not enter into an analysis of the causes which have led to the disruption in  
Wheal Tallack, and its present suspension, but we would impress upon the  
incoming proprietors the necessity of considering the mine as one of legiti-  
mate adventure, and not of speculative enterprise; to prosecute it in a miner-  
like manner, and not to allow themselves to be dictated to by any clique of  
shareholders, whether they come from Bath, Birmingham, or elsewhere.

The all-important HARBOUR OF REFUGE question is again being agitated,  
and an interesting pamphlet, by Mr. JAMES MATHER, directing attention  
to the requirements of the north-east coast of England, has just been is-  
sued. This coast, he remarks, has from time immemorial been the scene  
of terrible disasters: it seldom knows peace or calm. For several cen-  
turies the incomparable coal of the North of England, in its transmission to  
all parts of Britain and the civilised nations of the earth, has fostered fleets,  
and, affording indulgence to the bent of the people's nature, has made them  
what they are. It appears from the wreck registers of the Admiralty, that  
in 1850 there occurred at the entrances of the north-east ports 38 wrecks; in  
1851, 63; in 1852, 126; in 1853, 61; and in 1854, 152 wrecks in the  
same locality. From that time the Board of Trade has recorded the  
wrecks, and their report shows that in 1855 there were upon the coasts,  
and in the seas surrounding the British islands, 1141 wrecks, of which 576,  
or more than one-half, were upon the east coast; 251, or one-quarter, on  
the west coast; 117, or about one-tenth, on the south coast; and 127, or  
about one-ninth, on the Irish coast; whilst of the 1153 wrecks in 1856 the  
casualties on the several coasts were—506, 307, 119, and 155 respectively.  
In five years up to 1857, out of 5128 ships wrecked 2104 were upon the  
east coast of England. Between North Sunderland and Bridlington, a dis-  
tance of 131 miles, covering the north-east ports, there were wrecked in  
the same time 668 ships, of which 293 were totally lost; their tonnage  
being 87,790, and their value being upwards of 300,000*l.*, exclusive of  
cargo, and the incalculable loss of at least 500 of our British seamen.  
While thus the shipping of the east coast, which in five years had more  
than 2100 wrecks, was left to its fate, that of the south coast, with only  
725 wrecks in the same time, has had four harbours of refuge provided for  
it, the national cost of which has been 2,100,000*l.*, with an additional es-  
timated cost of 1,500,000*l.* to complete them, 224,000*l.* having been voted  
by Parliament last year to complete them.

The select committee seems to admit the necessity of a harbour of refuge  
on the north-east coast; the sole question in dispute, then, is the most suit-  
able localities, different authorities giving the preference to Tees Bay, Hen-  
don Bay, and the Tyne; the latter, if the number of casualties, its trade,  
and its shipping have any influence upon the question, has certainly many  
claims to consideration; yet, strange to say, only the Chairman of the Tyne  
Commission and a local alderman advocate the Tyne as the most desirable  
locality. Last year the Tyne shipped 4,422,808 tons of coal and coke,  
worth more than 1,500,000*l.*, nearly half of which was for exportation;  
this exceeds the amount exported of all the other north-east ports. Such  
is the extent of the shipping and trade of the Tyne, that sometimes fleets  
of 300 or 400 vessels leave its harbours in a single tide—more numerous  
than that of the Thames. On April 3, 1857, the Tyne had 1250 ships and  
steamers deeply laden afloat in its waters and ready for sea. The Tyne  
has the deepest water into its harbour of any port on the north-east coast.

By referring to the capabilities of the Wear and Tees, the superiority of  
the Tyne is easily shown; yet, from some extraordinary notions, certain  
naval officers recommend Hartlepool and the Tees as the most in want of  
a harbour of refuge.

In discussing the question of coaling, Mr. MATHER freely cites the evi-  
dence taken before the Harbour of Refuge Committee, from which it ap-  
pears that, if the naval authorities be correct, there is no place between the  
Thames and Orkney for ships of war to coal, except where no coal is to be  
found. He then enters into the question of the relative merits of the North  
country and Welsh coal; but as this question will shortly be definitely set-  
tled we refrain for the present alluding to it. For steamers of war, he con-  
tinues, to go to seek for coals—the life that is in them—down to Cromarty,  
Aberdeen, or Orkney, amongst the granite, gneiss, mica-slate, and old red  
sandstone, with no coal nearer than 200 miles, is an idea rather novel if not  
geographical. These cruisers would leave the nearest and worst Scotch coal  
that distance behind, and the valuable steam coal of Northumberland nearly  
300 miles. To make the far north harbours, capacious as they may be,  
coaling ports, the steam coal must be first carried there by the freighted  
vessels of the mercantile marine.

Leaving, however, all comparisons out of consideration, since comparison  
frequently induces the idea that there is personal feeling in the way, it ap-  
pears certain that the shipping interests of the Tyne are fully entitled to be  
provided with a harbour of refuge; and although those in power may en-  
tertain a different opinion, it will be but common justice that the arguments

of the Tyne and Wear Commissioners, the Shipowners' Society of Sunder-  
land, the Trade and Commerce Committee of Sunderland, and the repre-  
sentatives of the port of Seaham, should be refuted before any decision as  
to site is come to.

At the meeting of the shareholders of the ROYAL MAIL STEAM PACKET  
COMPANY, held on Wednesday, it was resolved to abandon the proposi-  
tion for amalgamating with the European and Australian Packet Company.  
The words of this decision being, "That this meeting is of opinion the  
postal communication with Australia cannot be profitably carried on by  
the Royal Mail Steam Packet Company in connection with the European  
and Australian Royal Mail Company; therefore, that the contemplated  
amalgamation be abandoned, and that the existing working arrangement  
be terminated as soon as possible."

This course on the part of the proprietors is the result of investigation  
into the financial position of the European and Australian Company, by  
which it appears that the losses sustained have been very much more con-  
siderable than were anticipated, and the proprietors would not listen to an  
amalgamation on any terms. No unnecessary alarm need, however, be  
felt by the very important interests associated with Australia, for no im-  
mediate disturbance, at all events, in the present postal arrangements will  
occur, as the existing arrangements between the two companies have yet  
nine months to run, which will give ample time for the European and  
Australian Mail Company to strengthen their position to continue to work  
the Suez route by themselves, or to make such other arrangements as may  
be necessary to secure adequate resources for this purpose. The present  
contract with the Government has about three years to run, and it appears  
that an intimation has been made from the authorities that the existing  
terms will be extended for a further period, while it is likewise deter-  
mined to modify the clauses as respects penalties for the non-performance  
of the passage within the prescribed time.

The report laid before the shareholders asserts, that "the very grave  
error committed by the superintendent of the European and Australian  
Company (at Sydney), coupled with the unfortunate accident to the  
*Emu*, have tended materially to damage the overland route in the esti-  
mation of the public at home and in Australia." This, however, is not  
the fact. There is no objection to this route, quite the contrary; but  
the mishaps and accidents which have occurred have rendered it imprac-  
ticable for the European and Australian Company to carry through their  
agreement efficiently with the present staff of steamers on the line; but  
this is an evil susceptible of early remedy, and one which the company can  
take steps to remove. Besides, it must be borne in mind, in equity to all  
parties, that the shareholders of the Royal Mail Steam Packet Company  
are not impartial judges as to the question of route, for it has long been  
the effort of this association to secure postal intercourse with Australia *via*  
Panama, and an agent was dispatched to Sydney to secure colonial sup-  
port; but the home Government, as well as the principal portion of the  
colonists themselves, are decidedly opposed to the adoption of this line of  
communication, or indeed to any alteration of the existing system, *via*  
Suez, beyond what may be necessary for increased postal intercourse, or  
expedition in the delivery of the mails at the different ports. We have  
more than once pointed out the importance of continuing the Suez route,  
not only as respects our Australian colonies themselves direct, but from  
the fact that it brings into close connection the East Indian as well as the  
Australian possessions with the mother country and with themselves;  
whereas no benefit whatever would be gained by a line of mails *via* Pa-  
nama, beyond what could accrue to the Royal Mail Company itself as the  
bearers of the bags.

#### SMOKE PREVENTION.

The vast number of contrivances that have been applied to the solution  
of this problem, especially since the Smoke Abatement Act was introduced,  
is singularly in contrast with the diversity, and even antagonism, of opinion  
as to the value of these contrivances, and as to the principles upon which  
smoke is to be done away with. On the one hand, too, we hear of smoke  
consuming arrangements; on the other, that smoke consumption is an ab-  
surdity, and that what is really required is smoke prevention. The dis-  
tinction is probably not so important as some consider. Again, since  
smoke is but the result of the imperfect burning of the gases and vapour  
evolved from coal, there is no question that to effect their perfect combus-  
tion, a supply of air must be provided capable of burning them. It is pretty  
generally admitted, that in a furnace which produces smoke when worked  
with bituminous coal, this supply of air for burning the gases and vapour  
evolved from the coal, cannot be introduced through the fire-grate. It  
must be brought in contact with those gases and vapours either at the  
bridge of the furnace or over the fire, by being introduced through aper-  
tures in the furnace door. Now arises a very much-disputed point—Is this  
air admitted through the door for burning the gases and vapours, which  
would otherwise produce smoke, to be hot or cold? Mr. C. Wye Williams,  
who has laboured so much, and with such excellent results, at the subject  
of combustion and economy of fuel, is strongly of opinion that cold air  
should be used; and with regard to the use of hot air, he considers that,  
although the theory of the hot-air system is plausible, there is not any in-  
crease of heat produced, while there is a practical inconvenience arising from  
the increased disproportion between the gas to be burnt and the air by  
which it is to be burnt.

Mr. Williams, in his last work on the "Combustion of Coal and  
Prevention of Smoke," remarks that the hot air plans "do not merit notice,  
either on the ground of theory or practice; that they are based upon no  
principle, justified by no proofs, and supported by no chemical or practical  
authority." He adds also, that "with reference to the use of hot air in  
boiler furnaces, no enquiry appears to have been made, either as to the  
temperature to which its advocates would raise it; or even whether by any  
of their plans it would be heated at all." He goes on to argue, that because  
of the expansion of air, when heated from 32 deg. to 512 deg. Fahr., being  
such as to double its bulk, twice as much hot air must be introduced into  
a furnace to produce the same chemical effect of burning the gases and  
vapour. By this increase of bulk, Mr. Williams believes that the efficacy  
of the air in burning the vapour is reduced. In support of this opinion, he  
refers to the reduction of combustibility of a mixture of some combustible  
vapour with oxygen or air, when the proportion of the latter gases is in-  
creased very much beyond the amount requisite for burning the vapour.  
But it must be remembered that this fact has reference only to the com-  
bustibility of such mixtures at the ordinary atmospheric temperature, and  
that it refers to a disproportion in the relative mass of the air as regards  
that of the combustible vapour.

It must likewise be remembered, that by mixing a combustible vapour  
with hot air the ratio of bulk between the two is not affected, except by  
mixing it with air in different proportions by weight. But it is by weight  
that the gases combine in burning; consequently there is no necessity for  
admitting a greater relative mass of hot air than of cold air to the gases or  
vapours to be burnt, the relative mass in both cases depending upon the  
quantity of air required for effecting perfect combustion.

Moreover, it may fairly be asked, does not the cold air introduced into  
a furnace through simple apertures in the door become heated before the  
combustion of the gases and vapours takes place, and is there not also an  
increase of bulk corresponding to that heating? If this be the case, where  
does the heat come from? Certainly from the fire; and thus heat  
which would otherwise be available for generating steam in the boiler, is  
diverted from performing that, its proper office, and is consumed in waste,  
but still necessarily, in giving the products of combustion that tempera-  
ture which they always have in escaping into the chimney of the furnace.

By the use of hot air this waste of heat may be prevented, and the steam-  
generating capacity, as well as the economical value of the coal, increased  
proportionally, provided the air before entering the furnace can be raised  
to the temperature at which the products of combustion pass into the  
chimney, by communicating to it, not heat which might be available for  
generating steam in the boiler, but heat that would under ordinary cir-  
cumstances be wasted. Now, there is an abundance of such waste heat  
radiated from the door of the furnace, the ash pit, &c.; and it really seems  
to be not only a very plausible, but also a very reasonable proposal, to  
attempt to make use of this heat for the purpose of preventing smoke.

In pursuit of his argument, Mr. Williams refers to the experiments made  
by Sir Humphry Davy on the influence produced on combustion by con-  
densing the air which supports the combustion. The result of these ex-  
periments was that both the light and heat produced were increased to  
four times what they were with air under ordinary pressure. This result  
Mr. Williams regards as decisive against heating the air, which would have  
the effect of expanding instead of condensing it. He also quotes Mr.

David Mushet's opinion, that since "the value of dense air in promoting  
combustion is so undeniably established, we should do better to attempt  
to solidify it in contact with combustible material, rather than to volatilise  
it." But both this opinion and Mr. Williams's inference from the experi-  
mental results obtained by Sir H. Davy, are open to the objection that  
there is much reason to doubt whether those experiments or the fact re-  
ferred to by Mr. Mushet have any kind of relation to the question of smoke  
prevention. There seems in both cases to be a confusion of operations and  
effects that are entirely distinct and different in all their aspects and bear-  
ings. Thus, by burning fuel with compressed air greater heat is pro-  
duced, only because a greater quantity of fuel is burnt within a given time.  
The generation of heat is more rapid—greater only in reference to time,  
not greater absolutely, in reference to a given quantity of fuel. With re-  
gard to this latter point, indeed, the opposite result is produced; for since  
all gases in expanding absorb heat, the use of compressed air for burning  
fuel would be attended with a certain waste of heat proportionate to the  
amount of condensation and expansion of the air.

For certain purposes, however, the rapidity of generating heat ensured  
by this means presents such advantages as to render altogether insignifi-  
cant the waste of heat incurred at the same time as a necessary conse-  
quence. Thus, in the blast furnaces of iron-works this is strikingly the  
case, and it is this fact which appears to have suggested Mr. Mushet's  
opinion, and to have been confounded with the operations going on in a  
boiler furnace, where so such intensity of action is required as in the blast  
furnaces, and where the object to be obtained—viz., the production of the  
greatest amount of heat from a given quantity of coal, and the utilisation  
of the greatest amount of that heat in generating steam, is directly oppo-  
site to the object sought in the blast furnaces—viz., the rapid generation  
of heat, and the production of an intense local temperature.

There is no doubt a limit to the time in which a certain quantity of  
heat must be generated in the furnace of a boiler, but as compared with the  
limit of time in which the same quantity of heat must be generated in a  
blast-furnace or a reverberatory-furnace, this limitation is quite dispropor-  
tionate. The cases are so radically distinct, that the principles which are  
applicable in the one cannot be applied in the other. The truth of this po-  
sition is abundantly illustrated by the results obtained by Mr. Pridaux in  
his experiments on the use of hot air in puddling and similar furnaces.

These remarks have been suggested by the recent announcement of the  
formation of a company for the express purpose of carrying out the appli-  
cation of hot air as a preventive of smoke. Under the title of the "Lon-  
don Smoke Prevention Company (limited)," they propose adopting the ar-  
rangements patented by Mr. O'Regan, both for boiler and other furnaces,  
as well as for domestic stoves.

The directors of this company state in their prospectus, that they have taken special  
pains to test, in every possible way, O'Regan's inventions, and from personal inspection  
of several in use can safely recommend their adoption. They are applicable to present  
marine, land, and locomotive boilers, distilleries, breweries, and furnaces in general,  
and is the only invention applicable to domestic stoves. The appearance of the present  
cheerful fire is not altered, indeed the alteration of existing stoves is scarcely discernible,  
and in new stoves may be made ornamental. They add, also, that "It is beyond a  
doubt that the dense atmosphere over London and other large cities is owing more to the  
aggregate nuisance arising from the chimneys of private houses and common dwellings,  
than to the dense volumes which are seen from manufactories. There is no alteration  
necessary in the mode of lighting or putting on the coals; neither is any alteration of  
the draught effected by perforations of the walls of chambers, or any other disfigure-  
ment. Simplicity is the characteristic of these inventions, whilst the expense is incon-  
siderable."

A number of furnaces in London, Liverpool, Manchester, and Glasgow  
have been fitted with the smoke-prevention apparatus; and it is added that  
these furnaces have been in constant use nearly four years, without the ne-  
cessity in any case of having them removed. The use of hot air, there-  
fore, appears likely to receive the test of practical experience, and to be  
placed in a more correct light than has hitherto been the case.

#### THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL.

[FROM OUR CORRESPONDENT IN WEST CORNWALL.]

APRIL 22.—There was no sale of copper ores in Cornwall last week, but  
at the Swansea sale, on the 13th, the standard declined nearly 2*l.* as com-  
pared with the previous sale on the 6th. There is good reason to believe  
that the standard has now reached about its lowest point for the present.  
There may be a few slight fluctuations in prices, but nothing material of a  
declining tendency. The price of fine copper is maintained, and the ac-  
counts from the manufacturing districts show that trade is somewhat re-  
viving. The advices from the United States are also encouraging, and  
orders are increasing for metallic manufactures. The East India trade is  
looking better, and various circumstances show that a return to a more ac-  
tive and prosperous state of trade may be expected shortly, although the  
revival will at first be of a very gradual nature.

The Devon Consols and other eastern mines will sell their ores to-day at  
Truro. The previous sale in Cornwall was on the 8th inst., when the price  
of ore copper (as much ore as would make a ton of fine copper) was  
89*l.* 17*s.*, and, as the price of cake copper is 117*l.* per ton, there exists a  
difference of 27*l.* 3*s.* per ton between the buying and the selling price of  
copper—a larger difference, it may be observed, than has existed in any  
former week of the present year, which adds weight to the conclusion  
otherwise arrived at, that the smelters will not need at the present time to  
make any further reduction in the standard. The business they now do,  
with fine copper at its present price, will afford them a liberal profit.

The tin trade is also showing symptoms of revival. The stocks of fo-  
reign are reported to be very small; there were only 438 tons in ware-  
house in London on April 1, against 793 tons on April 1, 1857. There is  
a large consumption of this metal, and it may be expected that the price  
will improve.

There have been some transactions in mining shares, but, on the whole,  
the business done is to a limited extent. Some of the dividend mines are  
looking well, and several of the progressive mines have indications of im-  
provement; if the standard were to advance, it is probable there would  
soon be a considerable increase of business. Wheal Basset has a promis-  
ing lode in the shaft sinking below the 120, and at several points the mine  
is looking favourable; shares are at 220*l.* and upwards. Wheal Buller is  
keeping up good samplings, and likely to become increasingly productive.  
There is a good lode in Kessler's shaft, sinking below the 60, worth about  
30*l.* per fm. In East Basset, shares are from 90*l.* to 95*l.* West Basset is  
in an improving state, especially in the western ground, which is very pro-  
mising. South Frances continues to be very productive in the stopes and  
pitchers, and there seems to be good reason for expecting an improvement  
in the lodes as they are driven further west. At West Seton, the shaft,  
sinking below the 100, is not so productive as it has been, but it is still a  
good lode, worth from 25*l.* to 30*l.* per fm. The lode in the 100 east, is at  
present one of the most productive in the county, being worth about 120*l.*  
per fathom, and there are in other parts of the mine some capital ends and  
winzes. South Tolgus continues to look well at several points on Youen's  
lode, and the 90 fathom level east, on south lode, is worth upwards of 20*l.*  
per fm. Alfred Consols is stated to be looking better in the eastern part of  
the mine. There have been enquiries for shares in Wheal Trungle, and  
the price has advanced; the mine is said to have excellent prospects.  
Grambler and St. Aubyn has a good lode in the 36, and the north lode has  
good indications. Wheal Clifford is opening up a productive mine, and  
will increase samplings; in the 208 the lode is worth 100*l.* per fm., and  
there are productive ends and winzes in other parts of the mine. At Wheal  
Margery, the lode continues good at Wellesley shaft, and at other points the  
mine is looking promising. Wheal Providence is looking better, but both  
these shares and Margery's have lately declined in consequence of the re-  
duced price of tin, and most of the shares in other tin mines have been  
affected in the same way. In the St. Agnes district, mining is rather  
gloomy at the present time. Great Wheal Busy is stated to be looking  
somewhat better.

The case tried in the County Court at Truro (mentioned in the Journal  
last week), and involving a question concerning the rules of mines, is  
worthy of some remark. It is quite proper to have rules for the working  
of mines, by which the miners are subject to certain regulations in respect  
of their work; but it is no use to have such rules unless they are read aloud  
on each setting-day, which is not always done in every mine, and, conse-  
quently, the tributers, in the case referred to, sought to avail themselves of  
the omission. Their allegation, however, on that point appears to have  
been incorrect, as was proved by the captain, purser, and a miner. The  
case is a warning to mine captains never to omit reading the rules on set-  
ting-days, because, if they do, and any tributers are afterwards discon-  
tented with their bargain, they may throw it up, and take advantage of the  
omission of reading the rules.

A useful work is announced by Mr. Rickard, one of the Masters of the  
Mining School at Truro. It is entitled a "Miner's Manual of Arithmetic

\* Ships and Galas. By JAMES MATHER, Esq., one of the Commissioners for the River  
Tyne. London: LONGMAN and Co.



The author proceeds to describe the mode of cleaning and annealing the iron plate, and preparing the iron for this purpose. He first takes the affinity of iron for tin, and refers to the plan adopted by manufacturers in the South Staffordshire to coat the surface of trifling articles, bridle-bits, &c. & so forth, with the latter metal, to prevent oxidation. This is accomplished by steeping the iron in sulphuric and muriatic acids, and immediately afterwards placing them in a vessel containing a mixture of tin and immersion ammonia, exposed to the action of heat. Mr. Rogers details the various improvements in the process of preparing iron for tinning, and states that the important improvement of the "grease pot" was introduced into South Wales in 1747. The plates are now adapted as illustrated by various diagrams, and its general features may be thus summed up.—A duct is sprinkled between each sheet, after the plates have been dipped in the acid, to keep them separate; they are immersed in a bath of grease, or oil, placed in the annealing-pot, and afterwards passed through the cold rolls, and again annealed at a low heat, to render them more ductile. After being well cleaned they are taken to the stove, plunged in the "thimman's pan" of grease, and immersed in a bath of molten tin, which is covered with grease; the latter process is repeated in purer tin, until the alloy complete. The grease-pot—*i.e.*, a vessel filled with melted lard—is then employed to remove superfluous tin, and prevent the plate from cracking. Operations to impart a finish then take place, and the plates are finally removed to the spring-press, where they are clasped and packed in boxes. The tests of quality given by Mr. Rogers are, ductility and colour. Mr. Rogers next enters into an investigation of the modes of producing the best iron for the purpose, and describes the method of "charring coal" in the fluey bedstead of charcoal. The reduction of the new material the coal is first reduced to reverberatory furnace to a depth of about 4 in., the bottom of the furnace being fired with a red heat. When the small coal is thrown over the bottom a great volume of gas is given off, and much ebullition takes place; this ends in the production of a light grey mass, which is turned over in the furnace and drawn in about one hour and a half.







LONDON AND NORTH-WESTERN RAILWAY.  
CONTRACTS FOR STORES.

The directors are prepared to receive TENDERS for the SUPPLY of the undermentioned STORES, viz.:

No. of Contract.	No. of Contract.
1. Copper.	19. Lead, white and red.
2. Canvas.	20. Lead, sheet, and pipe.
3. Carpets and rugs.	21. Iron, Yorkshire.
4. Axes.	22. Iron, Staffordshire.
5. Coals.	23. Tyre bars.
6. Crutches.	24. Iron castings.
7. Curled Hair.	25. Iron-work.
8. Colours.	26. Wheels.
9. Drysaltery.	27. Oil-cloth.
10. Coach trimmings.	28. Steel.
11. Ropes, cables, &c.	29. Springs and files.
12. Glass, plate.	30. Tin, block.
13. Glass, various.	31. Varnishes.
14. Lamp Cottons.	32. Hats.
15. Leather.	33. Caps.

Specifications and forms of tender may be had on and after Monday, the 19th of April, on application to the Secretary, Euston Station, London.

Forms of tender for each contract are printed separately, and parties applying should state the particular contract or contracts for which they propose to tender.

Tenders may also be inspected on and after Monday, the 19th of April, from Ten till Four o'clock, at the Company's Pattern Room, Euston Station; and any further information required may be obtained on application to the heads of the several departments. Tenders may be sent in before Ten o'clock on Monday, the 23d of May.

By order of the Directors, CHAS. E. STEWART, Sec.

Euston Station, April 15, 1858.

## ABERDARE WATER-WORKS.—TO IRONFOUNDERS.

The ABERDARE WATER-WORKS COMPANY will be prepared to receive TENDERS for 550 tons of CAST-IRON PIPES, according to plans and specifications, which may be seen on and after Monday the 19th inst., at the offices of the secretary, Cardiff-street, Aberdare; or at those of the engineer, Mr. WILLIAM WILLIAMS, at the Butte Dock Office, Cardiff.

The tenders to be sent in under seal to the secretary, at Cardiff-street, Aberdare, on or before Tuesday, the 15th of May, marked "Tenders for Pipes." The company do not bind themselves to accept the lowest or any tender.

Cardiff-street, Aberdare, April 8, 1858. By order, FRANK JAMES, Sec.

## TO ALKALI AND SULPHURIC ACID MANUFACTURERS.

The ADVERTISER has had the sole management of a large manufactory for several years, and is competent to PLAN, ERRECT, or MANAGE a similar concern of any magnitude, and on the most improved principles. His present engagement being about to terminate, he is OPEN to TREAT with manufacturers having works at present in operation, or capitalists about to erect the same, in any part of England or abroad. Highly respectable reference as to ability and character will be given.—Communications may be addressed to "X. Y.," care of Mr. Jas. Newton Warburton, 30, Cumberland-row, Newcastle-on-Tyne.

## TO CAPITALISTS.—PARTNERSHIP.—THE PROPRIETOR of

a COLLIERY, of the well-known ARLEY SEAMS, wishes to reduce his interest, and TRANSFER the WORKS to a JOINT PROPRIETARY with himself, in shares of £500 each.

The fixed working plant, comprising two shafts of 250 yards, one of 134 yards, and one of 10 yards, offices, smithies, joineries, stores, cottages, circular saw shabs, engine-houses for three engines, Ashlar beds for six engines, 14 coke ovens, lime kilns, top roads, well appointed stone yards for circular riddles, and stone wharves at canal and railway; to be taken at £10,000. The movable stock and proprietors' rights to be taken at a valuation.

The colliery is in the centre of the Lancashire manufacturing districts, and has direct canal and railway communications. The plant is complete for raising 2000 tons weekly, and 60 acres are cut out.

Further information will be supplied to parties of undoubted stability by W. GEDDES SMITH, Scotch law agent, 5, Castle-street, Liverpool.

## TO MANUFACTURERS, SMELTERS, AND OTHERS.—

A GENTLEMAN (aged 34), of much general experience, thorough business habits, and accustomed to large works, a good analytical and engineering chemist, and practically acquainted with several branches of metallurgy and manufacturing chemistry, wishes to ENTER into an ARRANGEMENT with some ESTABLISHED FIRM, either as JUNIOR PARTNER, and investing a small capital in the concern, or as GENERAL MANAGER, without partnership. Has held an engagement on the Continent during the last eight years, and can offer references of the highest class.—Address, "A. Z.," Messrs. Atkins and Co., 5, White Hart-court, Lombard-street, E.C.

## MINERALS ON LOCH FINE SHORES.—TO LET.

An extensive DEPOSIT of IRON ORES (Hematite, Sphatose), of Manganese variety, RED and BROWN OXIDES. These ores have been laid open by mountain torrents, and are in masses 15 to 40 ft. thick, and opened up for 300 to 400 yards on the surface. They are of excellent quality, and only 600 yards from the shore down hill. Freights to Glasgow, 2s. 6d. a ton.

Also, TO LET, a large COPPER DEPOSIT (Green and Yellow Carbonate), displaying large masses of green copper stone and nickel, likewise sulphate of lead (7 feet thick), lead, and zinc.—Apply to W. FORBES, of Etna, near Tarrat, Loch Fine, Argyleshire. A furnished house, if required.

## ST. JOHN DEL REY MINING COMPANY (LIMITED).

Notice is hereby given, that the ST. JOHN DEL REY MINING COMPANY WAS, on the 9th day of April inst., REGISTERED under the JOINT-STOCK COMPANIES ACT, 1856 and 1857, WITH LIMITED LIABILITY. All holders of shares are required to lodge the shares, or scrip, held by them at the offices of the company, No. 8, Tokenhouse-yard, in the City of London, forthwith, for the purpose of having the same registered, pursuant to the Acts. JOHN HOCKIN, Managing Director.

Dated 8, Tokenhouse-yard, April 21, 1858.

## ST. JOHN DEL REY MINING COMPANY (LIMITED).

Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders in this company will be HELD on Wednesday, the 5th day of May next, at Two o'clock in the afternoon, at the offices of the company, No. 8, Tokenhouse-yard, in the City of London, at which meeting it is intended to propose new provisions in lieu of the existing rules and regulations of the company, and to pass the resolution required by the 34th Section of the Joint-Stock Companies Act, 1856, for making such new rules and regulations. JOHN HOCKIN, Managing Director.

Dated 8, Tokenhouse-yard, April 21, 1858.

N.B. No shareholder can vote at this meeting unless he shall have previously lodged his shares at the offices of the company, as above required. A copy of the proposed new regulations may be obtained by any shareholder, on application at the office of the company, on or after Monday, the 26th inst.

## THE GREAT BARRIER LAND, HARBOUR, AND MINING COMPANY (LIMITED).

Notice is hereby given, that the FIRST GENERAL MEETING of shareholders of this company will be HELD on Friday, the 7th day of May, 1858, at No. 9, Great Winchester-street, in the City of London, at One o'clock, precisely. By order of the Directors, J. H. MURCHISON, Sec.

## MILLTOWN SILVER-LEAD MINING COMPANY, TULLA, COUNTY CLARE, IRELAND (LIMITED).

Capital £15,000, in 3000 shares of £5 each.—Deposit, 1s. per share on allotment. First call, £1 per share.

This company has been formed for the purpose of efficiently working the Milltown Silver-Lead Mine, in the county of Clare. The lode is composed of spar, blende, mende, quartz, and lime rock, interbedded throughout with good branches of silver-lead ore, worth about £20 per ton. The blende is worth £3 10s. per ton. Large deposits of ore have been found in the same strata, and carbonate of lime in large quantities lies at the surface, suitable for burning.

The opinion of three eminent practical men—viz., Capt. King, Mr. Lisabé, and Capt. Paul, of the Goggin Mine, Wales—have been obtained, who concur in the belief that the indications of the highly argentiferous ore (containing 38 ozs. of silver to the ton of lead) which this mine presents, call for such a full and proper development as can best be effected by a company with adequate capital, and hold out prospects of largely remunerative profit.

Up to a very recent period the Milltown Mine has been in the possession of an English gentleman, who, residing at a distance from the scene of operations, has been unable to bestow that constant personal supervision which is so essential to the efficient working of a mine. The directors have purchased it for the sum of £1500, and hope to be enabled to commence mining operations at once, and are convinced that the most prosperous results may fairly be anticipated. A large number of shares are already taken.

Applications for shares, prospectuses, and further information, to be made to the secretary, at the offices of the company, 8 and 9, Dame-street, Dublin.

## THE CARDIFF PRESERVED COAL AND COKE COMPANY (LIMITED).

Incorporated pursuant to the Joint-Stock Companies Act, 1856. Capital £20,000, in 4000 shares of £5 each.—Paid up in full at the time of subscription.

REGISTERED OFFICE.—BLACKWEIR, CARDIFF. SECRETARY.—Mr. George Ashcroft.

A manufactory is now erected at Blackweir, Cardiff, and the manufacture and sale of the material commenced.

The patentees have undertaken to manage the works of the company, without remuneration for his time and experience, until dividends at the rate of £10 per cent. per annum are paid to the shareholders. A stipulation to this effect is incorporated in the Articles of Association, which may be seen at the office of the company by persons desirous of subscribing for shares.—a small number only remain on sale.

Specimens may be seen, every information obtained, and references given, at the office of the company, Blackweir, Cardiff, Mr. GEORGE ASHCROFT, secretary, to whom applications for shares should be made. Specimens are also deposited and information obtained from—

Messrs. W. and G. RICHARDSON, 70, Cornhill, London.

Capt. HAYDON, 65, Cornhill, London.

Messrs. BARNARD, THOMAS, and Co., Albion Chambers, Bristol.

Messrs. RICHARD CORT and SONS, Swansea and Cardiff.

SARNEY GARDNER, Esq., Neath.

Capt. PERRY, Jerusalem Subscription Rooms, Cornhill, London.

The material manufactured by this company possesses the following advantages:—

1. It is from 8 to 12 per cent. stronger than any coal from which it may be made.

2. One HUNDRED AND FIFTY-SEVEN TONS can be stored on board ship in the space required for 100 tons of coal.

3. The blocks are of uniform size and weight (56 lbs.), and they become harder and make a more enduring fire after the lapse of 10 or 12 months than when newly made.

## UNITED STATES OF AMERICA.—DUPEE, BECK, and

BAYLES, BOSTON, MASSACHUSETTS, BROKERS for the PURCHASE and SALE of STATE, CITY, and RAILROAD SECURITIES, MANUFACTURING and BANK SHARES, give particular attention to the MINING COMPANIES OF LAKE SUPERIOR, and furnish reliable information concerning them.

[DUPÉE, BECK, and BAYLES refer to the Editor of the Mining Journal.]

## In the Court of the Vice-Warden of the Stannaries.—

In the Consolidated Causes of HARVEY AND OTHERS v. REED; MILLETT AND ANOTHER v. SAME.

NOTICE IS HEREBY GIVEN, that, pursuant to TWO several ORDERS, or DECREES, made in the above-mentioned Causes, and bearing date respectively the 10th and 14th days of November, 1855, a PUBLIC AUCTION will be HELD at WHEEL GUSKUS, in the parish of St. Hilary, within the said Stannaries, on Tuesday, the 4th day of May next, at Twelve o'clock at noon, for SELLING, either together or in lots, the MINING MACHINERY, MATERIALS, and OTHER EFFECTS at or upon the said MINE, and belonging thereto, or to the adventurers therein in respect thereof.—For viewing the same, application may be made to WILLIAM TONKIN, the officer of the Court in possession of the mine; and for further particulars, to Messrs. GREYLLS, HILL, and HALL, solicitors, Helston; or to Messrs. HOPKIN and HOCKES, plaintiff's solicitors, Truro.—Dated Registrar's Office, Truro, April 21, 1858.

## NEXT MONDAY, TUESDAY, WEDNESDAY, AND THURSDAY.

IN BANKRUPTCY.

MR. WHEATLEY KIRK is honoured with instructions from the Assignees of Mr. Joseph Porter, screw bolt and tool maker, a bankrupt, to SELL, BY AUCTION, next Monday, Tuesday, Wednesday, and Thursday, the 26th, 27th, 28th, and 29th of April, 1858, commencing each day at Eleven o'clock, at the Works, Queen-street, Salford, Manchester, known as the Salford Screw Bolt Works, ALL the exceedingly valuable STOCK IN TRADE, TOOLS, PLANT, UTENSILS, PATTERNS, MACHINERY, STEAM-ENGINES, BOILERS, SHAPING, MILL GEARING, extensive STORES, and about 70 cwt. of the BEST CAST-STEEL, &c., used in the manufacture, on an extensive scale, of screw bolts and engineers' tools; full particulars of which have appeared in previous advertisements, and are now in catalogues, which, with every information, may be had at the offices of Messrs. SALK, WATKINSON, and SHAWMAN, solicitors, Manchester; or of the auctioneer, Cross-street Chambers, Manchester; or of 4, Kirkgate, Leeds.

N.B. WHEATLEY KIRK'S WEEKLY CIRCULAR may be had at his offices, as above.

## MONMOUTHSHIRE.

VALUABLE AND EXTENSIVE IRONWORKS NEAR PONTPOOL.

MESSRS. DRIVER are directed to SELL, BY AUCTION, at the Mart, near the Bank of England, London, on Thursday, the 29th April, 1858, at Twelve o'clock (unless previously disposed of by private contract), ALL those valuable IRONWORKS, known as the VAITEG and GILYNOS IRONWORKS, situate near Pontpool, in the county of Monmouth, comprising FIVE BLAST FURNACES, with FORGES and MILLS; BLOWING ENGINE, TWO FURNACES, and nearly 1000 acres of MINERAL LAND, manager's residence, about 120 workmen's and other dwellings, houses, stores, warehouses, stables, shops, railways, bridges, kilns, and all other usual conveniences for carrying on the business of ironworks.

Of the above-mentioned acreage, about 227 acres are freehold, and the remainder leasehold; about 700 acres of the whole, including the freehold, being exempt from the payment of any royalty on the minerals raised.

Four of the furnaces are at present in blast, and now making 300 tons of rails per week, but are capable of making considerably more.

The lands comprise an ample supply of iron ore, coal, and fire-clay, and limestone can be obtained from quarries within a convenient distance.

This property is very advantageously situated, and is in direct railway communication with all parts of the kingdom.

The furnaces are only 14 miles, and the forges and mills only 11 miles, from the shipping port of Newport, where enlarged and capacious floating docks have just been opened.

One-half of the purchase-money may remain on mortgage.

Particulars and plans may be had of Messrs. DRIVER, 5, Whitehall, London; or of Mr. SACKENT WOODHOUSE, solicitor, Aberystwyth; and at the Auction Mart.

## GORN LEAD MINES, LLANDILOES, MONTGOMERYSHIRE.

MR. RICHARDS has received instructions to OFFER FOR POSITIVE SALE, BY AUCTION, on the premises, at the GORN MINES, about one mile from the town of Llandilo, on Friday, the 30th day of April, 1858, subject to conditions, in One Lot, ALL the LEASE of that valuable MINE called the GORN MINE, of which eleven years are unexpired, together with the extensive and valuable MACHINERY, PLANT, ORE, BARYTES, PUMPS, and CRUSHING MACHINE, with the WHOLE of the EFFECTS at the MINE.

Should there not be a satisfactory or reasonable offer made for the whole in one lot, the auctioneer will at once proceed to sell the machinery, water-wheel, and other effects, in separate lots, of which full particulars are given in posting bills, and may be had from him.

The mine is situated one mile from Llandilo, and close to the railway to Newtown, where there is water carriage. It is held under lease from—Morris, Esq., at a royalty of 1-12th for three years, the remainder at 1-10th; has produced a large quantity of rich lead ore, galena, and is comparatively untried below the adit level, the depth attained being 20 fathoms.

The auctioneer wishes it to be distinctly understood that the whole are for positive and unreserved sale.—Wyddyn, Newtown, April 9, 1858.

## EXMOUTH CONSOLS MINE, DEVON.

MR. JOHN HATCH has received instructions to OFFER FOR POSITIVE SALE the above valuable MINE, at Garraway's Coffee House, Cornhill, on Monday, the 3d day of May, subject to conditions then to be read, in Two Lots. The LEASE, of which 14½ years are unexpired, together with the BUILDINGS, PLANT, and computed 40 tons of ORE, the STORES, and WHOLE of the EFFECTS of the MINE.

The mine is situated at Christow, nine miles from Exeter, held under lease from Viscount Exmouth, at 1-15th dues, and is a most promising speculation.

Particulars may be had of the auctioneer, at his offices, Chapter Chambers; at Garraway's Coffee House; or of the secretary, 3, Crown-Court, Threadneedle-street; or of J. WYATT, Esq., South-square, Gray's Inn.

## BUTTERDON MINE, SITUATE IN THE PARISH OF MENHENOT, CORNWALL.

MR. PETER HAMBLAY WILL SELL, BY AUCTION, at the above MINE, on Tuesday, 4th May next, the MATERIALS, MACHINERY, &c., comprising an excellent 22 in. cylinder STEAM PUMPING ENGINE, 10 feet stroke, equal beam, with 10 tons boiler, one piece of main rod, with caps, &c.; shafts, with pulleys; 8-arm capstan, balance-bob, 45 fms. 8 in. main rods, strapping-plates, and rod pins, about 3 dozen staples and glands.

1 12 ft. 9½ in. plunger and case complete. 1 12 ft. 5 in. plunger-pole, with case complete.

1 12 ft. 8 in. plunger-pole complete. 1 9 ft. 10 in. wind-bore.

16 ft. 9 in. pump. 1 3 ft. 8 in. do. complete, 3 matching pieces.

13 ft. 8 in. pump. 1 6 ft. 8 in. do. complete.

1 8 ft. 8 in. pump. 1 6 ft. 8 in. do. complete.

1 12 ft. 8½ in. working-barrel. 1 9 ft. 10 in. flat bottom wind-bore.

2 13 ft. 7 in. working-barrel. 1 8 ft. 8 in. do. complete, 3 matching pieces.

16 fms. pumps, for house water lift. 1 9 ft. 10 in. bucket pump, joints, &amp;c.

20 fms. 1½ in. iron rods, several dozen 1½, 1¼, and 1 inch bolts and nuts; a quantity of wrought and cast-iron, smiths' bellows, anvils, vice, screw-plates, with taps, stock and jack; horse whim kibbles and pulleys, a quantity of best ½ in. chain, 3 in. and other ropes, about 40 fms. of dividing and casing, a quantity of useful timber, carpenters' bench, miners' chests, 4 wood sheds, dressing tables, several hundred feet of wood flooring, about 60 fms. of ladders, 4 in. ladders, a good winch, cross-cut saw, account-house furniture, and various other useful articles.

The works will commence precisely at Two o'clock in the afternoon.

Likeland, April 8, 1858.

## MINING, AUCTION MART, AND OTHER SHARES, AND A FEW PICTURES.

MESSRS. WINSTANLEY have received instructions to SELL, BY AUCTION, at the Mart, on Thursday, the 6th May, pursuant to a Decree made in a Cause "BLACK v. HOGGART AND OTHERS"—

16 Shares in the Auction Mart, a first-class freehold investment, in the City of London.

10 Shares in the Copiapo Mining Company.

16 Shares in the Wilts and Berks Canal.

10 Shares in the Kennet and Avon Canal.

10 Shares in the undertaking of the Great Level of the Wash; and

52 Shares in the Hampshire Archway Company.

Also, EIGHT PICTURES, by esteemed masters.

Printed particulars may be had of Mr. CHAS. BLAKE, solicitor, 4, Sergeant's Inn, Temple, E.C.; of Messrs. CLAYTON, COCKSON, and WAINWRIGHT, solicitors, 6, New-square, Lincoln's Inn, W.C.; at the Mart; and of Messrs. WINSTANLEY, Paternoster-row, E.C.

## CARMARTHENSHIRE.—VALUABLE ESTATE AND TIN WORKS.

MR. GAWN WILL SELL, BY AUCTION, at the Mackworth Arms, in the town of Swansea, in the county of Glamorgan, on Saturday, the 8th day of May next, 1858, at Three o'clock in the afternoon, in One Lot, the valuable ESTATE and PROPERTY, called the KIDWELLY TIN-PLATE WORKS, situate in the borough of Kidwelly, in the county of Carmarthen, on the banks of the River Gwendraeth, which affords an abundant supply of water during the greater part of the year, and distant from the town of Kidwelly one mile or thereabouts, and from the station on the South Wales Railway one mile and a half, the whole comprising an excellent family residence, in substantial and ornamental repair, standing in its own grounds, approached by a carriage drive, and fitted for the residence of a gentleman's family.

There is also a house for the occupation of a clerk or foreman, and two cottages, with the usual offices. The works, which are closely contiguous to the dwelling-house, are separated therefrom by a plantation, which effectually screens them from view. A wall surrounds the works, which consist of several sheds, warehouses, blacksmiths' shop, storehouse, carpenters' shop, and other buildings necessary for carrying on an extensive trade.

The trade part of the property consists of two tin mills, with helve backplate, puddling and baling furnaces, and one pair 6 in. bar rolls, all under one roof, and one pair cold rolls attached, with the necessary plant, &amp;c., and also a weighing machine. Outside the wall surrounding the works is a long building for box making and roll turning. The mills are worked by two water-wheels, 16 ft. diameter by 10 ft. broad, and 25 ft. diameter by 7 ft. broad respectively, and can turn out in their present state from 350 to 400 boxes of tin-plates per week; but, with a slight alteration in the machinery, and the erection of an engine, the production might be raised to 500 per week. The wash-house is fitted with two sets of pots.

In addition to the above there is an engine of from 25 to 30-horse power, with Cornish boiler and blast machine ready for fixing, which, together with other plant, stock in trade, &amp;c., now on the premises, may be taken at a valuation, at the option of the purchaser.

Coal of a peculiarly excellent quality can be obtained in the neighbourhood, and laid down in the yard under 8s. per ton.

The whole of the dwelling-houses and works are in general repair, and are held under a lease from the corporation of Kidwelly, at the annual rent of £4. The lease is for 99 years, commencing from the 25th day of March, 1844, leaving about 85 years now unexpired. Included in this lease is a wharf in the town of Kidwelly, with a frontage of 30 feet, with a yard for timber opening from the same, and a range of buildings now let as stables, but available for warehousing, or any other general purpose. During eight days in a fortnight vessels of 50 tons can come alongside the wharf and in spring tides (or five times in a fortnight) vessels of 120 tons can come up. The town is a short distance from the open sea.

There are many peculiar advantages attached to these works which cannot be enumerated within the limits of an advertisement, and among these are an undoubted situation, easy and ready transit, and lower wages than at most neighbouring works.

Further particulars can be obtained, and the works viewed, on application on the premises; or to Messrs. BYRAN and GIBBING, solicitors, Bristol; Mr. B. J. JEFFERIES, solicitor, Carmarthen; to the auctioneer, Cardiff-street, Aberdare; or Mr. H. J. HOLMES, solicitor, Aberdare.

## ROBERT MUSHET'S CAST-STEEL.

TO CONTINENTAL AND FOREIGN GOVERNMENTS, AND CAPITALISTS.

ROBERT MUSHET, of COLEFORD, GLOUCESTERSHIRE, having INVENTED and PERFECTED, on the scale of manufacture, STEEL, for the PRODUCTION of the BEST CAST-STEEL, at a cost far less than is accessible in almost all countries, and now OFFERS these UNPATENTED PROCESS FOR SALE, upon terms hereafter to be arranged with such parties as may be desirous to treat for them. The processes are as under:—

1. The MANUFACTURE of CAST-STEEL direct from the ORE, at a price of £12 per ton in the ingot, and of first-rate quality.

2. The MANUFACTURE of CAST-STEEL direct from DEOXIDIZED IRON ORE, at a cost of from £12 to £15 per ton of ingots. The quality of this steel, when the ores are carefully selected, is far superior to that at present manufactured from the expensive bar-iron of Sweden and Russia.

3. The MANUFACTURE of CAST-STEEL from ANY KIND of BAR-IRON, or SCRAP IRON, whether COKE or CHARCOAL IRON, so that a first-rate cast-steel obtained from ordinary charcoal iron, and good serviceable cast-steel is prepared from the cheapest scrap or bar-iron, at a cost of from £12 to £16 per ton.

4. The MANUFACTURE of CAST-STEEL from PIG-IRON and IRON ORE, to ensure the production of good cast-steel from coke pig-iron of average quality, first-rate cast-steel from charcoal pig-iron, at one melting, and without injury to the melting-pots, for £10 to £15 per ton.

Parties who may be disposed to treat for any of these inventions, and who agree to the terms which may be proposed, will also, if they require it, be taught and instructed in the routine for producing cast-steel upon the scale of manufacture, and the construction of the furnaces, pot mixtures, method of making the pots, and them, &amp;c., heating and drawing out of the ingots, &amp;c.; and they may have their workmen fully instructed in such routine.

In all the foregoing processes there is no departure required from the ordinary method of melting cast-steel, as now practised in Sheffield and elsewhere.

Parties desiring proofs may bring their own materials to be melted into steel, and be convinced that the advertiser has advanced nothing but what he can carry out to the fullest extent.

References.—Messrs. BROMAGE, SNEAD, and GOSLING, Bankers, Monmouth; THOMAS GRATEL, Esq., Banker, Newport, Monmouthshire.

## VALUABLE LANDS, with mines of COAL and IRONSTONE, now in full working, at

WILLENHALL, Staffordshire.

## MR. H. W. GREATER WILL SELL, BY AUCTION, at

Swan Hotel, in Wolverhampton, in the county of Stafford, on Wednesday, the 5th day of May, 1858, at Five o'clock in the afternoon (unless previously disposed of by private contract), of the WHOLE of the FREEHOLD portion of the estate, and subject to them to be sold, in One Lot, the

ALL THOSE SEVERAL CLOSERS, or PARCELS of LAND, with TWENTY-ONE DWELLING HOUSES and their OUT-OFFICES thereon, containing together, by estimation, 62 A. 1 M. 38 P., or thereabout (more or less), situate at Lane Head, in the parish of Willeshall, with the mines and minerals thereunder, known as the GREATER ESTATE and COLLIERY, together with the STEAM-ENGINE of 25-horse power, PUMPS, WINDING APPARATUS, ROPES, CHAINS, RAILS, SKIPS, and other MACHINERY, as the same are now in full operation.

The above-mentioned estate is situate about four miles from Wolverhampton, and mile from Willeshall, 42 A. 1 M. 25 P., of which is FREEHOLD, and the residue CO. HOLD. All the houses except two are erected on the freehold portion of the estate. The estate is surrounded by good roads, and the Birmingham Canal passes through the estate. There are seven shafts upon the land, two of which have been sunk down to the Flatts Ironstone.

About the following quantities of COAL and IRONSTONE remain ungoten—viz., The Top Gubbin Ironstone, about 30 acres. The Five Feet Coal, about 55 acres.

The Heaton Coal, about 35 acres. The Bottom Coal, about 64 acres.

The Brown Ironstone, about 35 acres. The Blue Flatts Ironstone, about 64 acres.

The Yellow Flatts Ironstone, about 35 acres. The Blue Flatts Ironstone, about 64 acres.

THREE MEASURES of COAL are now in work, and in a position, without any outlay, to draw 1000 tons per fortnight. There are beds of clay and sand under the Flatts Ironstone.

Further particulars may be obtained, and a plan seen, on application to Mr. CHAS. HAWKES, agent, Spring-hill, Hoxwich, near Walsall; the auctioneer, in Willeshall, at the offices of Messrs. HAWKES and PARKES, solicitors, in Wolverhampton.

## TREASURY UNITED MINES, CROWAN, CORNWALL.

TO BE SOLD, BY PUBLIC AUCTION, on the MINES, on Wednesday, the 5th day of May, 1858, at noon, the WHOLE of the ENGINES and MATERIALS on the MINES, in One Lot, consisting of ONE 80 in. cylinder PUMPING ENGINE, 10 stroke, equal beam, with two boilers about 22 tons; one 22 in. whim engine, with boiler about 7 tons; one 12-arm capstan, with cast-iron centre piece; shafts, 6 in. and 14 in. capstan-ropes; one balance-bob, complete; three 20 in. and 14 in. cast-iron pumps, together with suitable H and do. pieces, windlooms, plunger-pins, 62 fms. 14 in. main rods, with strapping-plates, bolts, &amp;c., complete; about 70 tons Norway, balk, and a variety of other articles.

For viewing the same, application may be made to Capt. WILLIAM ROBERTS, of the mine, who will furnish an inventory of the articles for sale.—Dated April 21, 1858.

## SOUTH WALES.—MR. ARTHUR O. DAVIES, of Denbigh,

authorised to TREAT for the SALE of TWO VERY VALUABLE GOULD LIERIES in South Wales.

Also, TO LET, an EXTENSIVE TRACT of STEAM COAL, on a long lease, at a moderate royalty, with a railway running through the property.

For terms, apply as above.

## CAMBRIAN FOUNDRY, ABERYSTWYTH, CARDIGANSHIRE.

ON SALE, an excellent NEW 25 in. CRUSHER, complete; also, a CRUSHER, nearly complete; and several LIFTS of PUMPS.

N.B. All kinds of CASTINGS, SMITHS' and BRASS WORK MADE, for all other purposes, on the shortest







## THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
3120	Alfred Consols (tin), Phillack [S.E.]	£2 11 10	10 1/2	11 1/2	£12 6 0	30-March 5, 1858.
1024	Ballewidden (tin), St. Just	11 5 0	4	4 5	12 5 0	0 5 0-Jan. 1, 1854.
4000	Bedford United (copper), Tavistock	2 4 8	6 1/2	6 3/4	9 10 0	0 2 6-March 4, 1858.
2400	Boscon (tin), St. Just	20 10 0	6 1/2	6 5	21 0 0	0 3 0-Sept. 4, 1857.
300	Botallack (tin, copper), St. Just	91 5 0	150	150 155	420 15 0	2 10 0-Feb. 16, 1858.
1200	Brightside and Froggatt Grove, Derbyshire	3 0 0	3 1/2	3 1/2	3 0 0	0 3 0-April 30, 1856.
100	Bryndol Hall (lead), Flintshire	25 0 0	80	80	13 0 0	0 5 0-July 31, 1856.
1000	Bryntul, Llanidloes, Montgomeryshire	7 15 0	1 1/2	1 1/2	0 5 0	0 5 0-July 1, 1854.
400	Budick Consols (tin), Ferman	2 2 6	5	4 1/2	0 10 0	0 10 0-March 26, 1857.
6000	Bwch (silver-lead), Cardiganshire	3 1 6	1	1	0 2 6	0 2 6-July 30, 1856.
4096	Calstock Consols (copper)	5 0 0	4 1/2	4 1/2	0 2 6	0 2 6-Dec. 23, 1857.
1000	Carn Brea (copper, tin), Illogan	15 0 0	5 1/2	5 1/2	239 10 0	2 0 0-March 30, 1858.
2048	Carnyorth (tin), St. Just	10 0 0	4 1/2	4 1/2	0 15 0	0 3 0-June 16, 1856.
200	Cen Cwm Brynno (lead), Cardiganshire	33 0 0	4 1/2	4 1/2	5 0 0	0 2 0-March 25, 1858.
2000	Collacombe (copper), Lantertown	5 0 0	15	15	2 5 0	0 8 0-Dec. 2, 1857.
256	Conduffor (copper, tin), Camborne [S.E.]	20 0 0	85	85 80	85 0 0	2 0 0-June 16, 1857.
1055	Craddock Moor (copper), St. Cleer	8 0 0	40	40	1 4 0	0 7 0-March 16, 1858.
30000	Craven Moor, Limited (lead), Yorkshire	0 10 0	3 1/2	3 1/2	0 9 0	0 9 0-Feb. 28, 1856.
128	Cwmystwith (lead), Cardiganshire	60 0 0	200	200	120 0 0	5 0 0-March 4, 1858.
290	Derwent Mines (silver-lead), Durham	300 0 0	150	150	122 0 0	10 0 0-June 25, 1857.
4076	Devon and Cornwall (copper)	4 6 3	16	16 18	0 5 0	0 5 0-April 20, 1858.
1024	Devon Great Consols (cop.), Tavistock [S.E.]	1 0 0	465	460 470	609 0 0	7 0 0-March 26, 1858.
472	Ding Dong (tin), Gwulva	33 15 0	10	10	16 7 6	1 10 0-March 2, 1857.
179	Dolcoath (copper, tin), Camborne	237 15 0	300	300	933 0 0	10 0 0-April 12, 1857.
12800	Drake Walls (tin, copper), Calstock	1 19 0	1 1/2	1 1/2	0 13 6	0 2 0-Sept. 11, 1857.
300	East Daren (lead), Cardiganshire	32 0 0	112 1/2	112 1/2	42 0 0	3 0 0-April 15, 1858.
2048	East Falmouth (copper), Whitechurch	2 0 0	175	175	297 10 0	2 10 0-Feb. 22, 1858.
128	East Pool (tin, copper), Pool, Illogan	24 5 0	6	5 1/2	0 5 0	0 5 0-Jan. 11, 1854.
1024	East Wheel Margaret (tin, copper)	7 17 6	6	5 1/2	0 5 0	0 5 0-Feb. 23, 1858.
5700	Exmouth (silver-lead), Christow	4 14 0	8	8	3 10 0	0 3 0-Feb. 23, 1858.
1000	Eyam Mining Company (lead), Derbyshire	5 0 0	50	48 50	16 13 4	1 0 0-Dec. 26, 1857.
4440	Fewey Consols (copper), Tywardreath	4 0 0	4	4 1/2	41 4 3	0 6 0-Feb. 17, 1857.
4096	General Mining Co. for Ireland (cop., lead)	4 0 0	3 1/2	3 1/2	1 0 8	0 3 0-June 5, 1853.
2000	Goginan (silver-lead), Cardiganshire	11 5 0	3 1/2	3 1/2	22 0 0	0 5 0-Sept. 5, 1850.
1024	Goginan (copper), St. Cleer	13 15 0	11	10 1/2	0 7 6	0 7 6-Dec. 21, 1852.
243	Graham and St. Aubyn (copper)	109 10 0	115	115	7 0 0	1 0 0-Jan. 5, 1858.
6000	Great South Tolgus [S.E.]	0 14 6	15	14 1/2	2 1 6	0 7 0-April 16, 1858.
6666	Great Wheal Vor (tin, cop.), Heiston [S.E.]	8 2 6	3 1/2	3 1/2	0 5 0	0 5 0-Oct. 22, 1856.
119	Great Work (tin), Germoe	100 0 0	100	100	221 10 0	7 10 0-Feb. 27, 1857.
1024	Herodotus (lead), near Liskeard	8 10 0	8 1/2	8 1/2	3 15 0	0 12 6-Jan. 28, 1858.
6000	Hingston Down Consols (copper), Calstock	3 10 0	5 1/2	5 1/2	2 16 0	0 2 6-Nov. 25, 1856.
2000	Holyford (copper), near Tipperary	11 0 0	8 1/2	8 1/2	4 2 6	0 5 0-Jan. 28, 1857.
2560	Isle of Man, Limited (lead)*	25 0 0	42	42	56 17 3	1 0 0-March 18, 1858.
76	Jamaica (lead), Mold, Flintshire	3 13 6	—	—	380 0 0	5 0 0-March 10, 1851.
20	Laxey Mining Company, Isle of Man	100 0 0	1000	1000	1420 0 0	50 0 0-June 30, 1857.
160	Levant (copper, tin), St. Just	2 10 0	115	110 120	1064 0 0	2 0 0-Feb. 17, 1858.
5000	Lewis Mines (tin, copper), St. Erth	6 11 1	1 1/2	1 1/2	0 10 0	0 10 0-Dec. 20, 1855.
400	Lisburne (lead), Cardiganshire, Wales*	18 15 0	120	120	310 10 0	3 0 0-April 1, 1858.
6000	Marke Valley (copper), Cardigan	4 10 6	1 1/2	1 1/2	0 5 6	0 3 0-Sept. 7, 1855.
2000	Mendip Hills (lead), Somerset	3 15 0	1 1/2	1 1/2	1 7 6	0 5 0-May 29, 1857.
5000	Merrilyn (lead), Flint	3 2 6	1 1/2	1 1/2	1 11 0	0 2 6-June 22, 1853.
1800	Minera Mines, Limited (lead), Wrexham	25 0 0	125	125	27 2 6	0 3 0-Feb. 11, 1858.
20000	Mining Company of Ireland (cop., lead, coal)*	7 0 0	17 1/2	17 1/2	13 7 9	0 12 3-Jan. 7, 1858.
5000	Nantes and Penrhyn, Limited (2 1/2% shares).	1 17 6	1 1/2	1 1/2	0 1 6	0 1 6-April 30, 1855.
6400	North Hearn, Westmoreland	0 2 0	1	1 1/2	2 0 0	1 0 0-May 21, 1856.
470	Newtowns Mining Company, Co. Down	50 0 0	35	35	51 0 0	3 0 0-March 1, 1858.
200	North Pool (copper, tin), Pool	36 10 0	65	70	324 0 0	2 0 0-June 16, 1858.
700	North Rock (copper), Camborne	12 0 0	27 1/2	27 1/2	750 0 0	4 0 0-Sept. 26, 1853.
6000	North Wheal Basset (cop., tin), Illogan [S.E.]	nd.	12	11 1/2	14 7 0	0 8 0-Feb. 24, 1858.
6400	Par Consols (copper), St. Blazey [S.E.]	1 2 6	18	17 18	31 14 0	0 10 0-March 2, 1858.
500	Peak United (lead), North Derbyshire	7 15 0	2 1/2	2 1/2	4 10 0	0 10 0-April 12, 1856.
200	Phoenix (copper, tin), Linkingmore	100 0 0	370	370	244 10 0	20 0 0-Nov. 18, 1857.
1000	Poiborro (tin), St. Agnes (Preferential)	15 0 0	5	5	18 11 9	1 0 3-July 11, 1857.
1772	ditto ditto (Old and ditto)	—	5	5	1 0 0	0 10 0-March 2, 1858.
560	Providence Mines (tin), Uny Lelant	20 13 2	65	62 1/2 67 1/2	72 4 6	2 0 0-Feb. 24, 1858.
2500	Rhoswylod and Bachelton (lead)	11 5 0	12	12	0 13 0	0 3 0-Oct. 21, 1857.
512	Rosewarne United (copper, tin), Gwennap	12 0 0	25	25 27 1/2	32 10 0	1 10 0-June 8, 1857.
12000	South Consols (cop.), Whitechurch [S.E.]	0 6 0	1 1/2	1 1/2	0 10 0	0 2 6-July 27, 1857.
256	South Carnarvon (copper), St. Cleer [S.E.]	2 10 0	395	395 400	510 0 0	10 0 0-March 30, 1858.
128	South Crinis (copper), St. Austell	19 0 0	285	285	60 0 0	20 0 0-June 18, 1853.
512	South Tolgus (copper), Redruth, Cornwall	8 0 0	75	70 80	74 0 0	3 0 0-July 28, 1857.
496	South Wheal Francis, Illogan [S.E.]	18 18 9	210	210 215	287 5 0	5 0 0-March 1, 1858.
1024	Sparnac Consols (tin), St. Just, Cornwall	3 12 0	1 1/2	1 1/2	8 8 6	0 5 0-June 13, 1856.
280	Sparnac (copper), St. Just	2 7 8	4	4	4 10 0	0 10 0-June 13, 1856.
970	St. Aubyn and Gwells (cop., tin), Breage	6 8 4	4 1/2	4 1/2	0 17 6	0 7 6-April 1, 1852.
20000	St. Day United (tin and copper)	2 0 0	4	4 1/2	0 3 6	0 1 0-Feb. 23, 1858.
470	St. Ives Consols (tin), St. Ives	16 0 0	37 1/2	35 40	915 0 0	1 0 0-Nov. 19, 1857.
9600	Tamar Consols (silver-lead), Beeralston [S.E.]	4 10 0	1 1/2	2 1/2	4 13 6	0 2 6-Feb. 7, 1856.
6000	Tinorot (copper, tin), Pool, Illogan [S.E.]	9 0 0	3 1/2	3 1/2	8 13 6	0 10 0-Feb. 18, 1858.
572	Trelyon Consols (tin), St. Ives	11 10 0	9 1/2	9 1/2	1 15 0	1 0 0-Feb. 21, 1854.
96	Trevaun (copper), Gwennap, Cornwall	42 10 0	65	60 65	467 15 0	5 0 0-June 4, 1855.
120	Trevelian (copper), Gwennap, Cornwall	15 10 0	15	15	403 13 6	2 10 0-April 29, 1851.
4000	Trevelian (copper, tin), Bodmin	1 3 6	1	1 1/2	0 5 0	0 5 0-July 8, 1856.
4096	Trevelian (silver-lead), Menheniot, Cornwall	2 10 0	1	1 1/2	1 12 0	0 3 0-April 2, 1857.
100	Trumpet Consols (tin), near Heiston	95 0 0	10	10 12 1/2	55 0 0	5 0 0-Dec. 20, 1854.
400	United Mines (copper), Gwennap [S.E.]	40 0 0	100	100	61 5 0	2 0 0-Feb. 12, 1856.
20000	Valley of Towy (lead), Carmarthen [S.E.]	0 12 6	1 1/2	1 1/2	0 4 9	0 1 0-March 12, 1858.
512	Wendron Consols (tin), Wendron	23 7 8	32 1/2	32 1/2 35	2 0 0	1 0 0-Sept. 22, 1857.
6000	West Basset (copper), Illogan [S.E.]	1 10 0	8 1/2	22 1/2 25	12 18 0	0 8 0-Jan. 27, 1858.
256	West Carnarvon (copper), Liskeard [S.E.]	20 0 0	110	105 115	285 5 0	2 0 0-Sept. 23, 1857.
256	West Darnell (copper), Gwennap	10 7 0	115	115	22 0 0	2 0 0-July 20, 1857.
4400	West Fowey Consols (tin and copper)	7 0 0	8 1/2	8 1/2 8 1/2	0 2 6	0 2 6-March 5, 1858.
1024	West Fowey (tin), St. Erth	38 10 0	210	210	116 10 0	8 0 0-April 13, 1858.
400	West Wheal Seton (copper), Camborne	35 10 0	310	310	116 10 0	8 0 0-April 13, 1858.
1228	Wheal Arthur (copper), Calstock	8 10 0	4 1/2	4 1/2 4 1/2	0 10 0	0 10 0-Oct. 25, 1855.
240	Wheal Bar (tin), St. Just	15 0 0	18	18	2 0 0	1 0 0-Nov. 14, 1855.
512	Wheal Basset (copper), Illogan [S.E.]	5 2 6	220	215 220	483 10 0	5 0 0-March 6, 1858.
256	Wheal Buller (copper), Redruth [S.E.]	5 0 0	300	300	467 10 0	10 0 0-March 16, 1858.
1024	Wheal Charlotte, Ferraunthorpe	5 3 4	7	6 7	1 10 0	0 10 0-Sept. 9, 1855.
250	Wheal Clifford (copper), Gwennap	—	250	240 260	42 0 0	3 0 0-Oct. 26, 1857.
4096	Wheal Edward (copper), Calstock [S.E.]	5 10 0	6 1/2	6 1/2	0 5 0	0 5 0-March 30, 1855.
8000	Wheal Fortunate (copper), Bodmin	nd.	80	80	0 2 4	0 1 6-Jan. 14, 1856.
128	Wheal Friendship (copper), Devon	60 0 0	1 1/2	1 1/2	2385 10 0	10 0 0-Feb. 11, 1858.
1024	Wheal Grylls (copper, tin), Breage	0 4 0	1 1/2	1 1/2	0 2 0	0 2 0-Feb. 24, 1857.
512	Wheal Jane (silver-lead), Kea	3 10 0	11	10 1/2	8 10 0	1 10 0-Oct. 16, 1857.
5000	Wheal Kitty (tin), St. Agnes	4 10 0	3 1/2	3 1/2	0 6 0	0 3 0-March 24, 1857.
1024	Wheal Kitty (tin), Uny Lelant [S.E.]	1 7 2	11 1/2	11 1/2 12	6 0 0	1 0 0-Sept. 17, 1857.
400	Wheal Lovell (tin), Wendron	33 0 0	18	18	31 0 0	1 0 0-Sept. 5, 1856.
448	Wheal Margaret (tin), Uny Lelant	19 15 0	47	42 1/2 45	85 0 0	1 0 0-Feb. 23, 1858.
1024	Wheal Mary Ann (lead), Menheniot [S.E.]	8 0 0	4	4 1/2 4 1/2	34 12 6	2 5 0-March 9, 1858.
80	Wheal Owles, St. Just, Cornwall	70 0 0	300	300	220 12 0	5 0 0-Aug. 2, 1857.
240	Wheal Reith (tin), Uny Lelant	35 10 0	130	125 135	286 10 0	2 0 0-Oct. 12, 1857.
198	Wheal Seton (tin, copper), Camborne	10 0 0	130	125 135	31 10 0	2 0 0-Jan. 26, 1858.
1040	Wheal Trevelian (silver-lead), Liskeard [S.E.]	4 10 0	25	24 1/2 25 1/2	31 10 0	2 0 0-Jan. 26, 1858.
1024	Wheal Tremayne (tin, copper), Gwennap	11 2 6	1 1/2	1 1/2	10 2 6	0 7 6-Jan. 11, 1854.
4096	Wheal Wrey (lead), St. Ives	1 9 0	3 1/2	3 1/2	2 12 6	0 2 6-Dec. 22, 1857.
5000	Wicklow (copper), Wicklow	5 0 0	42	42	28 15 6	1 10 0-Jan. 14, 1858.

(\* Dividends paid every two months. † Dividends paid every three months.)

## FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
10000	Alten and Quansang United (cop.), Norway	16 10 0	6	6	£4 5 0	£0 15 0-Nov. 21, 1853.
2404	Borra Barra (cop.), South Australia	5 0 0	135	135	195 0 0	0 5 0-March 3, 1858.
12000	Cobre Copper Company (cop.), Cuba [S.E.]	40 0 0	39	40 1/2	86 12 0	1 0 0-Jan. 26, 1858.
10000	Copago Mining Company, Chili [S.E.]	16 0 0	14	13 1/2	5 18 0	0 10 0-March 19, 1858.
7000	English and Australian	5 0 0	1 1/2	1 1/2	0 7 6	0 2 6-Feb. 23, 1858.
30000	General Mining Assoc., Nova Scotia [S.E.]	15 0 0	17	17 1/2	10 5 0	0 8 0-July 2, 1857.
15000	Llanara (lead), Pozo Ancho, Spain [S.E.]	15 0 0	9 1/2	9 1/2	5 10 6	0 8 0-March 30, 1858.
10000	Lustaniana (of Portugal) [S.E.]	1 15 0	1 1/2	1 1/2	0 6 3	0 2 0-May 25, 1857.
103815	Mariquita and New Granada [S.E.]	1 0 0	3 1/2	3 1/2	0 5 0	0 1 0-Jan. 29, 1859.
10000	Pontalva (silver-lead), France [S.E.]	20 0 0	6	5 1/2 6 1/2	1 0 0	1 0 0-June 26, 1855.
7000	Royal Santiago (copper), Cuba [S.E.]	16 15 0	2	2 1/2	33 0 0	1 5 0-July 12, 1848.
11000	St. John del Rey, Limited	15 0 0	13	13 1/2	35 7 6	1 0 0-June 19, 1857.
43174	United Mexican (silver), Mexico [S.E.]	23 5 0	3 1/2	3 1/2	1 16 6	0 4 0-Feb. 14, 1853.
18876	North British Australian [S.E.]	1 0 0	3 1/2	3 1/2	0 31 1	0 1 3-Feb. 25, 1857.